



***AMENDED, RESTATED AND REVISED LEADER
REPLACEMENT SYSTEM AGREEMENT***

***Exhibit W (Statement of Work for CalSAWS Cloud
Enablement Project and Interim Maintenance and
Operations)***

Schedule 1 - Contractor Assumptions

**CalSAWS Consortium,
a California Joint Powers Authority**

- 1.1.** Procured equipment will be delivered within 60 calendar days of order.
- 1.2.** Exchange services will be delivered within 60 calendar days of order.
- 1.3.** Telecom services will be delivered within 90 calendar days of order.
- 1.4.** LA County will provide IT resources to support design, build, and deployment of PoPs of LA County's responsibility area after demarcation point.
- 1.5.** PoP demarcation is the ethernet port of the CONTRACTOR's on-site PoP router.
- 1.6.** LA County will provide support for installation and turn-up of PoP telecom circuits to meet delivery timelines.
- 1.7.** LA County will provide remote hands support or access to LA County PoP locations to meet delivery timelines.
- 1.8.** AWS and the California Department of Technology ("CDT") will provide ability for CONTRACTOR to use AWS organizations and "landing zone" functionality.
- 1.9.** AWS and CDT will provide CONTRACTOR "root" access required for establishing security and network configurations to meet delivery timelines.
- 1.10.** AWS, CDT, and JHC Technology (the reseller CDT is using) will not disable services or take other actions/inactions that would prevent CONTRACTOR from deploying/managing the environments for the CalSAWS System.
- 1.11.** CONSORTIUM defined delivery locations and architectures may add network latency. Network latency may change application performance profile.
- 1.12.** AWS database alternative solutions support most of the critical features of the on-premise Oracle database that is currently used by the Technical Services Applications which are defined as AMP, Audit, LRS Dashboard and LMS Lite. This SOW accounts for handling minor variations. If some critical Oracle database feature is not supported by AWS a major redesign of the Technical Services Applications will be required and this SOW does not include the redesign effort to adapt to an AWS database. The fallback strategy will be to keep the database platform on Oracle in AWS running as an RDS or as an EC2 instance, exact method to be determined as and when needed, with the impact of licensing and other related costs.
- 1.13.** AWS S3 solution supports document storage with unique identifiers similar to the functionality used within Oracle WCC. If during analysis and design it is discovered that

some of current features are not fully supported by AWS S3 and require significant redesign of the application functionality, this SOW does not include such an effort.

- 1.14.** If during implementation design of the Person Search Index it is discovered that some of the current features are not working due to reduced columns indexing and require significant redesign of the application functionality, this SOW does not include such an effort. The fallback strategy will be to configure Informatica Identity Resolution to index same number of columns.
- 1.15.** Only external configuration changes required to allow the YBN application to function in AWS will be implemented. If it is discovered that YBN requires any significant architecture changes or supporting code modification to work in AWS, this SOW does not include such an effort.
- 1.16.** Adobe SAAS supports dynamic document generation and template management similar functionality used with on-premise Adobe Experience Manager. If during the analysis and design it is discovered that some of the current features are not fully supported and require significant redesign of the application functionality, this SOW does not include such an effort. The fallback strategy will be to continue using the on-premise Adobe Experience Manager running in AWS, exact method to be determined as and when needed, with the impact of licensing and other related costs.
- 1.17.** There will be no functional changes to the application as part of the migration to AWS Cloud, except where necessary due to current on-premise platform features not being available or supported by equivalent AWS platform services.
- 1.18.** Some of the above desired architectural changes driven by the impact of AWS component failures, will be easier than others. For instance, reducing database failover time below the results found in the AWS PoC does not have a foreseeable solution while the database is still Oracle (see Section 2.4.5)
- 1.19.** All hardware and software required to deliver the scope of services described in this SOW will be purchased by the Consortium under the C-IV Agreement.
- 1.20.** CDTS is not a party to the AGREEMENT but is providing services on behalf of the Consortium critical to the success of the CEP. It is the Consortium's responsibility to resolve issues related to CDTS and/or the AWS Cloud.

- 1.21.** In the event documentation is not available for the existing LRS reporting solution, additional effort may be necessary to support the re-platforming.
- 1.22.** It is assumed that all software licensing and 3rd party tools will be provided by the CONSORTIUM.
- 1.23.** Code baseline freezes during the re-platforming / migration period will be adhered to where possible.
- 1.24.** Any application enhancements including code retrofit or functional changes (if necessary) to support the analytics replatform is not included in this SOW.
- 1.25.** Support for defects not introduced by the analytics re-platforming will be addressed per current maintenance and operations processes.
- 1.26.** Timestamps will be made available in the analytics data sources to account for a delta and incremental ingest.
- 1.27.** This statement of work does not include real-time ingestion processes. Architecture currently includes validation for daily to monthly refresh schedule.
- 1.28.** This statement of work does not include any data quality efforts or enforced data purification rules.
- 1.29.** For analytics, the quality of the data in the new platform will be one and the same as the data in the source system.
- 1.30.** For analytics, the extract, transform, and load data (“ETLs”) and reports implemented will be functionally equivalent to the original dashboards and reports. Enhancements are not in scope. The legacy ETLs, reports and test documentation will be the basis of the requirements, design and testing.
- 1.31.** For that analytics, the price does not include outbound integrations, microservices and analytics.
- 1.32.** Additional AWS and any necessary software costs will be determined for Ad-Hoc, Enhanced Data Reporting and CalWIN County API usage pending the outcome of functional design for these services. These costs are not included in the Cloud Enablement SOW.
- 1.33.** OBIEE dashboards included for re-platforming are as of December 2018. The price does not include dashboards introduced as of release 19.01 and onward.

- 1.34.** For the analytics effort the source database is the LRS online transactional database, it is assumed the data in the LRS Datawarehouse is obsolete and will not be transitioned.
- 1.35.** Effort to support the transition or creation of dashboards to be sourced from the Statewide Self Service Portal is out of scope.
- 1.36.** Security and access rights for the analytics platform will be implemented per LRS Dashboard/Reporting specifications.
- 1.37.** Work required to maintain and operate the LRS application other than that expressly included in Task 8 (Interim Maintenance and Operations) is not included in this Exhibit W. Instead, Work such as Modifications and/or Enhancements (“M&E”) to the LRS will continue to be performed in accordance with Exhibit A of the Amended, Restated and Revised LRS Agreement and approved LRS Deliverables.
- 1.37.1.** The price for Production Operations, which includes WAN Administration and production operations support, are based on the specifications included in Schedule 5 (Production Operations Specifications) of this Exhibit W and information known as of the execution date of this SOW. Such specifications include a listing of county sites for Los Angeles County and the CalWIN Counties, certain central sites for the Consortium, addresses for the county and central sites, quantities, unit prices, service specifications (e.g. type of service, bandwidth, etc.), and schedule for each service. In the event a change to the specifications is required – whether the change is planned (e.g. requested by the Consortium) or unplanned – the Consortium will be responsible for paying additional prices for Work and/or Production Operations required to implement the change. Changes may include, but are not limited to those for: additional bandwidth, changes to the telecommunications technology, changes to the Wide Area Network solution, additional county or central sites, changes to a site’s address and changes to the scope of production operations support. Any changes to the scope of Production Operations would be added into this SOW with a future Amendment.
- 1.37.2.** Production Operations services associated with CalWIN County sites are based on the groupings of Counties for each go-live wave for cutover to the CalSAWS System:

- CalSAWS Wave 3/CalWIN Wave 1: Placer, Yolo, and Contra Costa
- CalSAWS Wave 4/CalWIN Wave 2: Santa Clara and Tulare
- CalSAWS Wave 5/CalWIN Wave 3: Orange, Santa Barbara, and Ventura
- CalSAWS Wave 6/CalWIN Wave 4: San Diego, San Mateo, Santa Cruz, and Solano
- CalSAWS Wave 7/CalWIN Wave 5: Alameda, Fresno, and Sonoma
- CalSAWS Wave 8/CalWIN Wave 6: Sacramento, San Francisco, and San Luis Obispo

Any changes to the go-live schedule and groupings of Counties for each wave listed above will need to be assessed by CONTRACTOR and may require additional Production Operations charges. Any changes to the scope of Production Operations would be added into the Agreement with a future amendment.

1.37.3. Assumption removed via Amendment No. 27.

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- 1.37.3.2.** Assumption removed via Amendment No. 27.
- 1.37.3.3.** Assumption removed via Amendment No. 27.
- 1.37.3.4.** Assumption removed via Amendment No. 27.
- 1.37.3.5.** Assumption removed via Amendment No. 27.
- 1.37.3.6.** Following the completion of design for system changes that would enable the C-IV System's text messaging solution to support the 58 Counties for the CalSAWS System, the CONTRACTOR will assess the overall impact to the text messaging volumes based on the new design for the 58 Counties. Any additional text messaging volumes required to support the addition of Los Angeles County and the 18 CalWIN Counties per Design Difference Identification ("DDID") number 1784 will require additional Production Operations charges, which will be added to this SOW with a future Amendment .
- 1.37.3.7.** Performance Requirements/Service Level Agreements ("SLAs") will not apply to the text messaging solution. Participants may not receive text message notifications sent via the LRS System due to

factors outside of the CONSORTIUM or CONTRACTOR's control (e.g. failures caused by participant's mobile phone hardware and software, participant's mobile service provider, etc.).

1.37.3.8. Production Operations charges do not include any modifications to functionality for the text messaging notifications solution. Any requested changes to the functionality will follow the release management process as documented in the LRS M&E Services Plan.

1.37.3.9. Assumption removed via Amendment No. 27.

1.37.3.10. Assumption removed via Amendment No. 27.

1.37.3.11. Assumption removed via Amendment No. 27.

1.37.4. Production Operations Support related to managing the CalSAWS Cloud Exchange will commence three (3) months prior to the 39 Consortium Counties' cutover to the CalSAWS System to allow certain Consortium-owned data center equipment to be transferred from the C-IV Production Data Center and C-IV Development Data Center to co-location facilities or "exchanges" provided by a third-party vendor for connection to the CalSAWS AWS Cloud. This Consortium-owned data center equipment will continue to be operated for the LRS System (and, subsequently, the CalSAWS System) at the third-party co-location facilities for initial maintenance and operations and will not be decommissioned as the services running on that data center equipment will not be migrated to the CalSAWS Cloud.

1.37.5. The price for Production Operations does not include any charges for services from Amazon Web Services ("AWS") for the CalSAWS Cloud's compute resources. The Consortium will be fully responsible for making such resources available for supporting the CalSAWS System's Cloud-based architecture, including the procurement and payment for such services from AWS. As the CalSAWS System's requirements for AWS Cloud computing resources may change through the term of the CalSAWS M&O Project, the Consortium should include additional amounts in its annual budget for the CalSAWS M&O Project (the Implementation Advance Planning Document or "IAPDU") to account for planned changes to the requirements for AWS Cloud computing resources.

- 1.37.6.** The estimated compute resources outlined in Schedule 3 are based on information known by the CONTRACTOR as of April 1, 2019.. As the Work for this SOW progresses, the CONTRACTOR may identify additional computes resources or services (including AWS services) that are required for CONTRACTOR to manage and operate environments in the AWS Cloud. In the event CONTRACTOR identifies additional compute resources or services required for security, delivering the CEP, and/or managing and operating environments in the AWS Cloud, CONTRACTOR will discuss with the CONSORTIUM such compute resources. The CONSORTIUM is responsible for making such resources available to the CONTRACTOR to support the delivery of the CEP and IM&O, including the procurement and funding of those resources.
- 1.38.** The software/licensing outlined in Schedule 4 are based on information known by the CONTRACTOR as of April 1, 2019. As the Work for this SOW progresses, the CONTRACTOR may identify additional software/licensing that are required for CONTRACTOR to manage and operate environments in the AWS Cloud. In the event CONTRACTOR identifies additional software/licencing required for security, delivering the CEP, and/or managing and operating environments in the AWS Cloud, that were unknown to CONTRACTOR as of April 1, 2019, and could not reasonably have been anticipated by CONTRACTOR as of that date, CONTRACTOR will so advise the CONSORTIUM of such additional software/licensing requirements. The CONSORTIUM is responsible for making available any software/licensing to the CONTRACTOR to support the delivery of the CEP and IM&O, including the procurement and funding of that software/licensing. With respect to additional software/licensing requirements that the parties agree reasonably should have been anticipated as of April 1, 2019, CONSORTIUM will be responsible only for the actual cost of procuring the additional software/licensing, but shall not pay any amount of that software/licensing above its actual cost and shall not be charged by CONTRACTOR for any additional labor costs associated with utilizing such additional software/licensing. If the parties are unable to agree on whether the additional software/licensing reasonably should have been anticipated by CONTRACTOR as of April 1, 2019, the resolution of that dispute shall be resolved pursuant to the Dispute Resolution process set forth in the Base Agreement.

Delays in making such software/licensing available will delay the delivery of Work and, in turn, push out the projected completion date.

- 1.39.** The solution to be delivered for the CEP is based on existing security requirements for the LRS System. Additional security documentation and capabilities are not in scope and will create additional costs and/or delays.
- 1.40.** The Consortium will handle any approvals with stakeholders related to transitioning the LRS to the AWS Cloud (including but not limited to security).
- 1.41.** The Performance Requirements identified in the Base Agreement and/or Deliverables for the LRS will change in the following ways at the point the LRS production system is cutover to the AWS Cloud:
 - 1.41.1.** CONTRACTOR will not be responsible for liquidated damages primarily resulting from Performance Requirement failures due to faults (such as availability, performance or security) with the AWS services. These faults could be caused by AWS, CDT or CDTs reseller, JHC Technology. CONTRACTOR will be responsible for responding to the incident and determining the root cause of the problem. CONTRACTOR will also work with the Consortium to recommend changes to the architecture to increase resiliency for similar future potential failures. This exclusion language will be written into Deliverable 1.2.1 (LRS M&O Services Plan).
 - 1.41.2.** The Performance Requirements will not stack during the IM&O period covered. If multiple Performance Requirements are broken due to the same root cause, and that root cause is attributable to the CONTRACTOR, the CONSORTIUM can choose only one applicable Performance Requirement to apply liquidated damages against.
- 1.42.** Calculations for the development environment availability as part of the LRS Monthly Reporting Performance Requirement will be adjusted to reflect that the environments are no longer supposed to be available at all times, since the CONSORTIUM is paying for the environments based on usage.
- 1.43.** Change Requests affecting the production LRS/CalSAWS System are handled using procedures for that system and governed by downtime calculations in the Performance Requirements. Change Requests for non-production services (for instance internet access

at the PMO), changes anticipated to impact services will not occur during project hours unless approved by the Technical and Operations Director (or designee). Change Requests for non-productoin services outside the project hours will receive appropriate notice and be scheduled at appropriate times based on the impact of the change and the impact of delaying the change.

1.43.1. Change Requests are different than Service Requests. Change Requests are proactive changes that are not directly needed to control/resolve an incident. Services Requests are used to fix active problems and do not require approval or scheduling (the team working the incident has discretion to make changes to resolve or control the incident)