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INFORMATION MEMORANDUM

To: State SACWIS Project Managers, State Information Technology Executives, and Other Interested Parties

Subject: Service Oriented Architecture (SOA)

Related References: 45 CFR 95, Subparts E and F.

Purpose: This document provides States with information regarding their potential use of Service Oriented Architecture (SOA) in implementing or enhancing automated child welfare information systems within the guidelines of current regulations.

Background: The Children's Bureau is aware that a number of States have expressed interest in implementing Statewide Automated Child Welfare Information Systems (SACWIS) that are based on an SOA. As part of efforts by the Children's Bureau to keep abreast of changing information technology, we have conducted an assessment of this architecture, and its viability as a technological basis for SACWIS. This document provides States with information resulting from that assessment.

Service Oriented Architecture is an application architecture in which some or all functions are defined as independent services. These services use standard protocols and conventional interfaces to facilitate access to business logic and information. Examples of services that could be implemented in an SOA are: Eligibility Determination, Financials, Referrals, and Security.

Information: States have been developing and implementing SACWIS since the mid-1990s. Many of these systems are in varying stages of operations and maintenance. Some States have or are considering enhancing or replacing these existing systems with web-based child welfare applications utilizing an SOA.

The Children's Bureau is willing to consider an SOA to be a viable system architecture for a SACWIS when supported by a complete and convincing business case presented in an Advance Planning Document (APD).

The Children's Bureau would view a State's migration to an SOA as a major change in project direction, thereby requiring the State to follow the Department's regulations pertaining to APDs at 45 CFR 95.605. A State would need to submit an As Needed APD Update (APDU) or an Implementation Advance Planning Document (IAPD), as appropriate; review 45 CFR 95.605 to determine which document to submit.

As defined in 45 CFR 95.605, the APD must include a thorough and persuasive business case to support the decision to employ an SOA. That business case should include, but not be limited to, the following elements:

- An alternatives analysis that evaluates the pros and cons of various technological strategies upon which the State could base its SACWIS.
- The quantitative and qualitative technological advantages that would accrue to the State if it were to migrate to an SOA-based SACWIS.
- A feasibility study that demonstrates that it is technologically, architecturally, economically, and programmatically feasible to complete such a migration successfully.
- A description of the security features and all related legal agreements and arrangements necessary for the SOA's operation in order to demonstrate how the State would comply with the Department's data security and integrity requirements.
- A thorough cost benefit analysis that encompasses all of the SOA's life-cycle costs for all benefiting programs. This should include the estimated costs for planning, design, development, installation, operations, and maintenance associated with the entire project.
- A cost allocation methodology that encompasses all benefiting and participating program areas that will share the costs of the project.
- An analysis that clearly shows how the State's migration to an SOA-based SACWIS would lead to the more efficient, economical and effective administration of the programs carried out under a state plan approved for titles IV-B and IV-E.
- An analysis that demonstrates how the new architecture will meet the SACWIS requirement for a single statewide system.
- A description of the SOA's governance structure and processes that:
 - Identifies the roles and responsibilities of all stakeholders of the SOA; and
 - Describes the contents and level of protection afforded through the Service Level Agreements (SLAs) executed between all of the stakeholders of the SOA.

All States must comply with the Departmental regulations at 45 CFR 95.507, 45 CFR 95.605 and 45 CFR 95.631 regarding the allocation of automated system development and operational costs, and 45 CFR 1355.57 regarding the allocation of all SACWIS costs. All cost allocation methodologies must identify and include all benefiting program areas and their respective funding sources, a percentage of derived benefits that the program area (funding sources) expects to realize from each individual service, and overall program area magnitude (cases, transactions, and expenditures for services).

States must submit development cost allocation methodologies as a component of an Advance Planning Document (APD) for an SOA development or major system enhancement that the

Children's Bureau considers to be a development activity. Any change to a developmental cost allocation methodology is subject to review and approval by the Children's Bureau. States should refer to Part III of Action Transmittal ACF-OISM-001, dated February 24, 1995 for additional guidance regarding the acceptable allocation of SACWIS development costs.

Prior to the implementation of an SOA-based SACWIS, States should work with the ACF regional office and the Division of Cost Allocation personnel to amend their existing operational cost allocation plans to account for any cost allocation changes that would result from the use of the SOA-based automation.

Conclusion: After serious investigation and consideration of this technological construct, the Children's Bureau has concluded it could support States' design, development, installation and operation of a SACWIS based on a SOA under circumstances described in this document.

Inquires to: HHS - Children's Bureau, Division of State Systems

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Joan E. Ohl
Commissioner