



# **eWiSCAWIS Review**

**Recommendations for Applying CCWIS Guidelines per the  
2016 Administration for Children and Families 45CFR Part95 and Chapter III  
Comprehensive Child Welfare Information System Final Rule**

**December 1, 2017**

Division of Safety & Permanence

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## *1. Executive Summary*

### **The *Very Short Version*:**

It is recommended that the Department of Children and Families transition its existing child welfare information management system, and become fully CCWIS compliant. It should pursue the following next steps as part of that process:

- Embrace the CCWIS-rule concepts of modularity, portability, reusability, data exchange expansion, application mobility, and data quality maintenance
- Declare, as soon as practical but before the deadline of July 31, 2018, to the Administration For Children and Families (ACF), the state's intention to become fully CCWIS compliant
- Begin the process of compiling and filing necessary declaration and advance planning documents in January 2018, with the assistance of the federal Administration for Children and Families (ACF)
- Conduct a budget impact analysis to determine any additional fiscal resources that would need to be requested in the 2019-2021 and 2021-2023 budget cycles
- Complete an process, starting in January of 2018, to define a product roadmap and a plan to transition the current eWiSACWIS application and infrastructure into a fully modular, CCWIS rule-compliant, mobile-enabled application
- Plan for a phased approach that will result in a complete system transition by December 2021, leveraging ACF matching contributions of up to 50% of the cost of CCWIS transition
- Partner with other states (with similar child welfare profiles) to work together to share successful CCWIS transition strategies

## Overall Conclusion and Recommendation

It is the recommendation of this report that the Wisconsin Department of Children and Families, Division of Safety and Permanence pursue a goal of complete CCWIS rule compliance by December 31, 2021. This goal should be completed in a series of phases that provide upgraded, and additional, capability through modular delivery. The recommendation is to complete a product roadmap and CCWIS planning process in 2018 that will result in a project to transition eWiSACWIS to a fully-modular system using forward-looking technology and development methodologies. The cost of this effort will be determined as part of the planning process.

This report **DOES NOT**:

- Provide a specific recommendation for a vendor, support organization, or technology
- Attempt to estimate costs for an implementation project
- Define the specific requirements of a Wisconsin CCWIS system in lieu of formal product roadmap or requirements definition process
- Pre-empt, or replace, a requirements gathering process, planning process, budget impact analysis, or cost estimate

## 2. Project Scope

Starting on February 20, 2017, and continuing through December 31, 2017, a consultant from Encore Consulting in Chicago, IL was retained to complete an analysis of the existing eWiSACWIS system in Wisconsin, to examine its alignment to Administration for Children and Families (ACF) rules on State (Tribal) Automated Child Welfare Information Systems (SACWIS/TACWIS) and provide a recommendation as to whether the system should become compliant with the pending Comprehensive Child Welfare Information Systems (CCWIS) guidelines as released by the Department of Health and Human Services, Administration for Children and Families (ACF) in a rule on June 2, 2016<sup>1 2</sup>. It was also expected that the analysis would provide a high-level recommendation on next steps in the compliance process.

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<sup>1</sup> (United States Code, 2016)

<sup>2</sup> (Children's Bureau, 2016)

The further purpose of this report is to provide a recommendation to the Wisconsin Department of Children and Families (DCF) on next steps relevant to a future development path of its child welfare information management system (currently eWiSACWIS). It started with an evaluation of the gap between the existing Wisconsin eWiSACWIS system, and the requirements that have been redefined by the new ACF rule. It included a series of activities aimed at understanding how the system functions, how it is used, and the development process that it follows for enhancements and bug fixes. The project included an exchange of information with child welfare agencies in other states, both for perspective and to share ideas on best practices in the decision making process.

### ***3. CCWIS Rule Compliance Guidelines***

The project is focused on comparing the alignment of the existing Wisconsin Department of Children and Families eWiSACWIS application with the requirements of the pending Comprehensive Child Welfare Information Systems (CCWIS) guidelines as released by the Department of Health and Human Services, Administration for Children and Families in a rule on June 2, 2016. Key provisions of the rule define several required characteristics of a CCWIS for it to achieve compliance.

#### ***3.1. Modularity***

CCWIS systems must be built in modules, making it less likely that any necessary upgrade or change will be cost prohibitive. This is in contrast to the characteristics of older SACWIS systems built with monolithic designs. The rule provides agencies with the flexibility to determine the size, scope, and functionality of their information systems, so long as they meet the other requirements of the final rule. The rule requires CCWIS automated functions to be built as independent modules that may be reused in other systems or be replaced by newer modules with more capabilities. All title IV–E agencies must follow industry standards when designing and building software modules.

#### ***3.2. Data Sharing / Data Exchanges***

CCWIS systems must be built with the capacity to interface with other data systems from schools, juvenile justice agencies, courts, other family-and-youth-serving agencies, federal institutions and care providers. Data exchange capabilities should be leveraged within the application, and with external partners.

A CCWIS must maintain data needed to support federal & agency requirements, including:

- IV-B/IV-E data for federal or agency reports audits, reviews, & monitoring
- IV-B/IV-E data to support federal or agency laws, regulations, and policy
- Data to support Indian Child Welfare Act (states only)
- Adoption and Foster Care Analysis Reporting System (AFCARS) data
- National Child Abuse and Neglect Data System (NCANDS) data for federal audits, reviews, and reports (states only)

A CCWIS must support collaboration, interoperability, and data sharing that is efficient, economical, and effective. Data exchanges are required for the following entities:

- Courts
- Education
- Medicaid
- Child welfare contributing system
- Ancillary child welfare systems used by agency staff (multiple)

### ***3.3. Reusable / Exportable Code***

The United States Department of Health and Human Services requires that the design details and software used to meet CCWIS requirements be exportable in such a manner as to facilitate system creation and management assistance between states. CCWIS systems must be maintained in a state that will facilitate replication to other states, with the mechanism of such replication currently under development by the ACF.

### ***3.4. Data Quality Plan / Reporting***

The United States Department of Health and Human Services requires that there be a renewed and expanded emphasis on data quality. Every agency must develop a data quality plan, continue to monitor data quality, and implement responsive actions to address findings found in data quality reviews. Annual audits are expected, and must be fully documented.

## ***4. Analysis Methodology***

The overall project methodology used for this assessment consist of a multi-pronged approach to eWiSACWIS analysis. An initial assessment of the environment began with a review of the eWiSACWIS application, including its architecture and human interface. The process included interviews with Department of Children and Families (DCF) employees, county case workers, and contractors connected to eWiSACWIS support and development.

### ***4.1. Analysis Activities***

The analysis effort consisted of the following activities:

- **Assessment of the current state**, including known system requirements, problems and opportunities, the current DCF business objectives, business processes, and system interfaces.
- **Evaluation of options**, based on available information and an objective assessment of alternative characteristics relative to the pending and future needs of the Wisconsin DCF.
- **Production of a final report** that summarizes analysis findings and recommendations. As a preface to the final report, the Executive Summary provides a high-level synopsis of key components and outcomes of the analysis

### ***4.2. Analysis Methods***

#### ***4.2.1. Conduct eWiSACWIS User Interviews***

##### ***Interviews***

Interviews were conducted with 200+ system users, grouped by section function, in an open conversation format. The project focused the group on four main questions. Subjects were solicited from three main groups, DCF staff in Madison, DCF staff in a sampling of WI counties, and county workers. The discussions were guided using the following questions. Session notes and responses are stored in the project's OneNote Notebook, which may be found here: [Interviews](#)

The questions posed were:

- How do you/your section use eWiSACWIS in your role(s)?
- What other SACWIS/CCWIS systems have you used in the past?
- Who do you regard as a system expert? (sometimes called a super-user)
- If time and resources were not a consideration, how would you change eWiSACWIS?

### ***End User Shadowing***

During the months of August and September 2017, two workers from Clark and Iowa counties were shadowed for a period of one day each to observe their interaction with the eWiSACWIS system during the normal course of their activities. Special care was exercised to not interfere with their work, but to only observe how they used the system. At the end of each session, the participants were debriefed about what was observed, and notes were added to clarify any ambiguities, and elicit further comments. Notes from these interviews are stored in the project's OneNote Notebook, which may be found here: [Interviews](#)

### ***4.2.2. Engage Tribal Child Welfare Directors***

The project manager attended tribal child welfare director meetings and posed questions about eWiSACWIS use, the intersection (if any) between tribal child welfare information systems and eWiSACWIS, the unique challenges that tribal child welfare workers face when using state-owned information management systems, the features of the system that they like (and/or dislike), and their suggestions for changes and improvements. A group of tribal child welfare directors and associated staff were interviewed in a group setting, and their comments were captured in notes. Comments were validated after-the-fact with the group at a follow-up meeting, and are preserved in the project OneNote Notebook, and may be found here: Tribal Child Welfare Discussion.

### ***4.2.3. Solicit Input from other States***

The project manager communicated with representatives of other state child welfare departments and gained an understanding of how they are preparing for compliance with the CCWIS rule and modifying their systems and practices in order to achieve success. Outreach was made to child welfare agencies in other states. Where possible, interviews were conducted with individuals responsible for their state's

exploration of CCWIS compliance and system development. California<sup>3</sup> and Colorado shared their entire process, and Colorado provided a copy of a study document. California provided system guidelines, and links to demonstration systems provided by competing vendors.

#### 4.2.4. *Solicit Vendor Information*

While not an official request for proposal (RFP), a request for information document (RFI) was prepared and distributed to a list of vendors who have the capability to manage a CCWIS implementation, and made available on the Wisconsin VendorNet portal (<https://vendornet.wi.gov/>). The purpose of this document was to ensure compliance with state rules governing procurement during information-gathering activities aimed at discovering the best practices around CCWIS system development and implementation.

The RFI received responses from a cross section of software vendors, system integrators and professional consulting firms. The results were screened for matches to DCF system criteria, and one of each type of respondent was invited to present to the project team.

RFI Responder	Type
Accenture	Professional Consulting
Case Commons	Software Vendor
CGI Technologies and Solutions	Software Vendor
CMA Consulting Services	System Integrator
Deloitte Digital	Systems Integrator
Diona	Software Vendor
FEi	Software Vendor
GovWebWorks	System Integrator
KPMG	Professional Consulting
Livanta	Software Vendor
Microsoft	System Integrator
Northwoods	Software Vendor
Public Consulting Group Human Services	Professional Consulting
Unisys	Software Vendor

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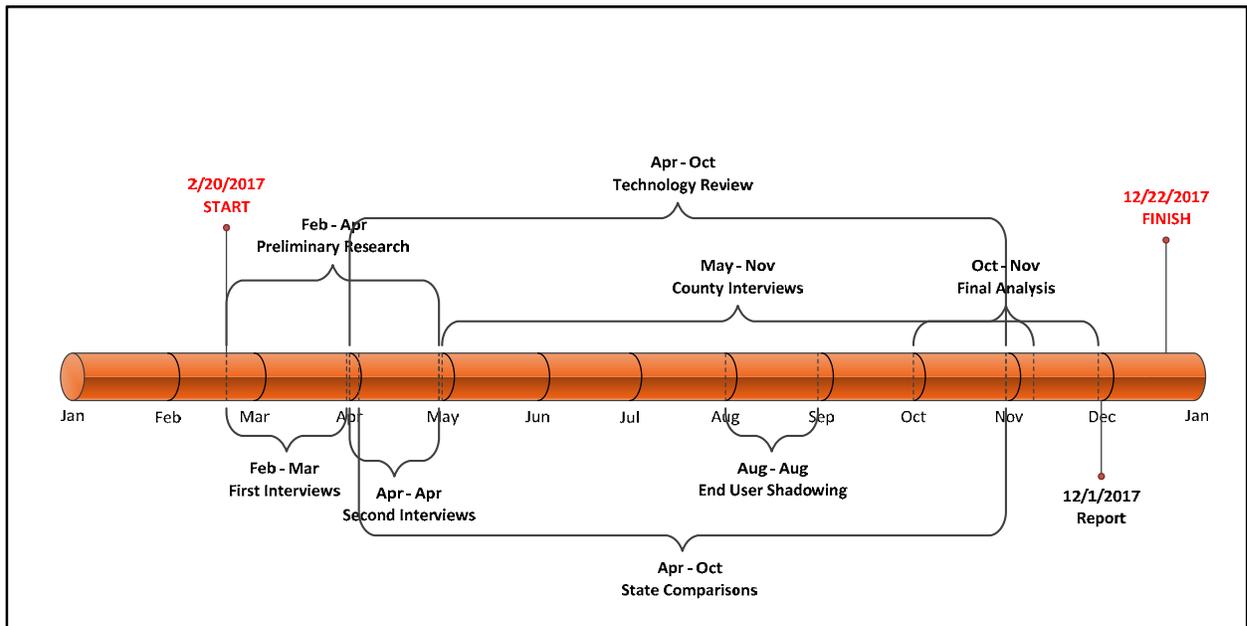
<sup>3</sup> (California Child Welfare Digital Services)

### 4.2.5. Analyze Relevant Information

The project reviewed all available information to develop a clear recommendation on how the Wisconsin Department of Children and Families should proceed over the next three years with respect to CCWIS system maintenance and development. Information was collected from independent research sources, federal agencies, WI county child welfare workers and supervisors, DCF employees, public webinars, child welfare CCWIS project administrators from Minnesota, Arizona, California, Colorado, and Virginia. This information as used to create an informed holistic perspective of the requirements of the pending CCWIS rule and the options available to Wisconsin for compliance with the rule.

### 4.2.6. Timeline

The project followed a timeline from February 20, 2017 through December 22, 2017 as indicated below:



## **5. Current State**

### ***System Analysis - eWiSACWIS***

#### ***Architecture***

Currently, eWiSACWIS is a functional, web-based application consisting of an online component, batch processing, and reporting capabilities. It uses Java as the online component programming language and JSPs/HTML/JavaScript for online presentation made up of approximately 400 pages and 400 MSWord document templates. There are roughly 60 COBOL programs comprising the batch/off-hours processing. It uses an Oracle database server, with approximately 920 database tables, 840 database triggers, and 70 database views. Roughly, 175 predefined and on-demand reports are produced using COBOL or Crystal Reports. The statewide standard for web applications and application authentication is iChain/LDAP technology.

Currently a separate data warehouse exists which imports a subset of eWiSACWIS data nightly. This data is used for operational, financial, performance and trend reporting that supports case management activities, supervisory functions, federal reporting requirements and policy decisions. The data is stored in an Oracle database, using Informatica for Extract, Transformation and Load, SAP Business Objects for reporting, SAP Dashboards for guided visualization and Tableau for advanced data discovery and presentation.

Many of the Business Objects reports and dashboards have been embedded into the current eWiSACWIS reporting module. When launched, the reporting module passes eWiSACWIS system variables, which allows Business Objects to set appropriate user security and data access levels for a seamless and customized user experience

#### ***eWiSACWIS Technical Overview***

The eWiSACWIS system operates on an n-tiered architecture composed of distributed personal computers running Microsoft IE 6 or higher, with web, application, and database servers located at a central location.

### ***Data Architecture & Documentation***

The relational database management system used by eWiSACWIS is Oracle 12c. The storage and access to data is paramount to the successful operation of eWiSACWIS. Some of the key characteristics of the eWiSACWIS database are:

- An architecture that facilitates high performance and scalability. The database has over 550,000 case records, 5,400,000 payment records, and 30,000,000 approval records;
- Naming standards and conventions applied across the database. A detailed standards guide exists and the application maintenance vendor team must ensure future changes comply with existing policies;
- Data code values used to represent frequently occurring data elements, which greatly reduces data storage requirements. For example, across the system the Case Data Type data element is represented by a numeric value (1=Adoptive Homes, 4=CPS, etc.) and;
- Procedures to perform processing shared between the online and batch system, such as payment processing.

### ***Core Technologies***

eWiSACWIS uses the J2EE specification as the development standard for the server-side layers. J2EE refers to a collection of various technologies and the following is a list used for the eWiSACWIS development:

- JDK 1.6 – Java development toolkit for all server-side layers
- JDBC 12.1.0.2 – Java database connectivity for data access
- JSP 1.3 – Java server pages for server-side rendering of client pages
- Servlet 2.3 – Server-side controller specifications
- Due to the rich nature of the user interface, various client technologies were used, such as:
  - RTF 1.9.1 and ActiveX using Visual Studio 6.0 for rendering MS Word documents to the end user
  - JavaScript 1.5 and HTML 4.0.1 for the rich browser user interface

The Struts Framework is the core for the entire eWiSACWIS online application framework. Struts is an open-source, Java based framework developed by the Jakarta branch of the Apache software foundation.

Key eWiSACWIS framework services include:

- Data cache and relevant interfaces
- Security provider interface
- Exception and error handling, error substitution
- Dynamic outlines
- Database connection and transaction management of Application Programming Interfaces (API's)
- Encryption/Decryption of API's
- Base 64 encoding/decoding API's
- Application server API
- State management
- Transport management
- E-mail
- Transaction statistics
- Office Automation

Every functional area of the eWiSACWIS system follows the same Model View Controller (MVC) design and architectural pattern.

### ***Performance Monitoring***

The eWiSACWIS online system has self-monitoring capabilities that track system performance at the application and database server transaction level. This monitoring capability is activated via a resource setting.

### ***Batch Architecture***

The eWiSACWIS batch architecture provides functionality to execute all offline processing. Batch processing is a critical component of the overall eWiSACWIS system. Processes include:

- Payment calculation and check data creation
- Regularly scheduled reports
- Interface programs
- System cleanup utilities (Person Merge, Case Merge)

- Workflow processing (Tickler Creation, Tickler Cleanup, Work Reassignment)
- Intake processing from county-based intake systems

### ***Standard Batch Processing***

The eWiSACWIS batch architecture consists of over sixty (60) COBOL programs. With the exception of on-demand batch programs, the programs and processes in the eWiSACWIS system are designed to run hands-off. A batch scheduler automatically runs the scheduled batch runs, backup procedures and interface programs. Reports, as a part of the scheduled run, are produced without any operator intervention. The batch processes consist of individual COBOL programs, COBOL reports and output from Crystal Reports arranged in logical groups called run cycles and run inventories. These are executed at scheduled intervals. Many eWiSACWIS and dWiSACWIS reports can also be run outside the normal schedule through an “on demand” process that allows end users to specify parameters and a non-standard run-time for the report. Reports are available to authorized county staff via a web-based distribution application.

### ***Intake Batch Processing***

The eWiSACWIS system has a continuously running process that accepts intakes from county systems. The Common Intake Agent (CIA) interface provides a means of transferring demographic data from a county’s common intake system to the eWiSACWIS system. At a specified time in a county’s process, intake data is sent through a process to formulate a message containing the demographic data elements needed to create an intake within the eWiSACWIS system. After the data is processed and the database updated, the new intake will appear on the designated caseworker’s desktop to continue with the required CPS activity done within eWiSACWIS. A continuously running Java application is used to monitor the IBM MQSeries Common Intake Agent message queue. When the queue receives a message from a county, the QMA for CIA module removes that message from the queue, processes it and then inserts the resulting records into the eWiSACWIS database.

## Software Overview

eWiSACWIS maintenance requires knowledge of and experience with a variety of software products.

Below is an overview of products and how they are used.

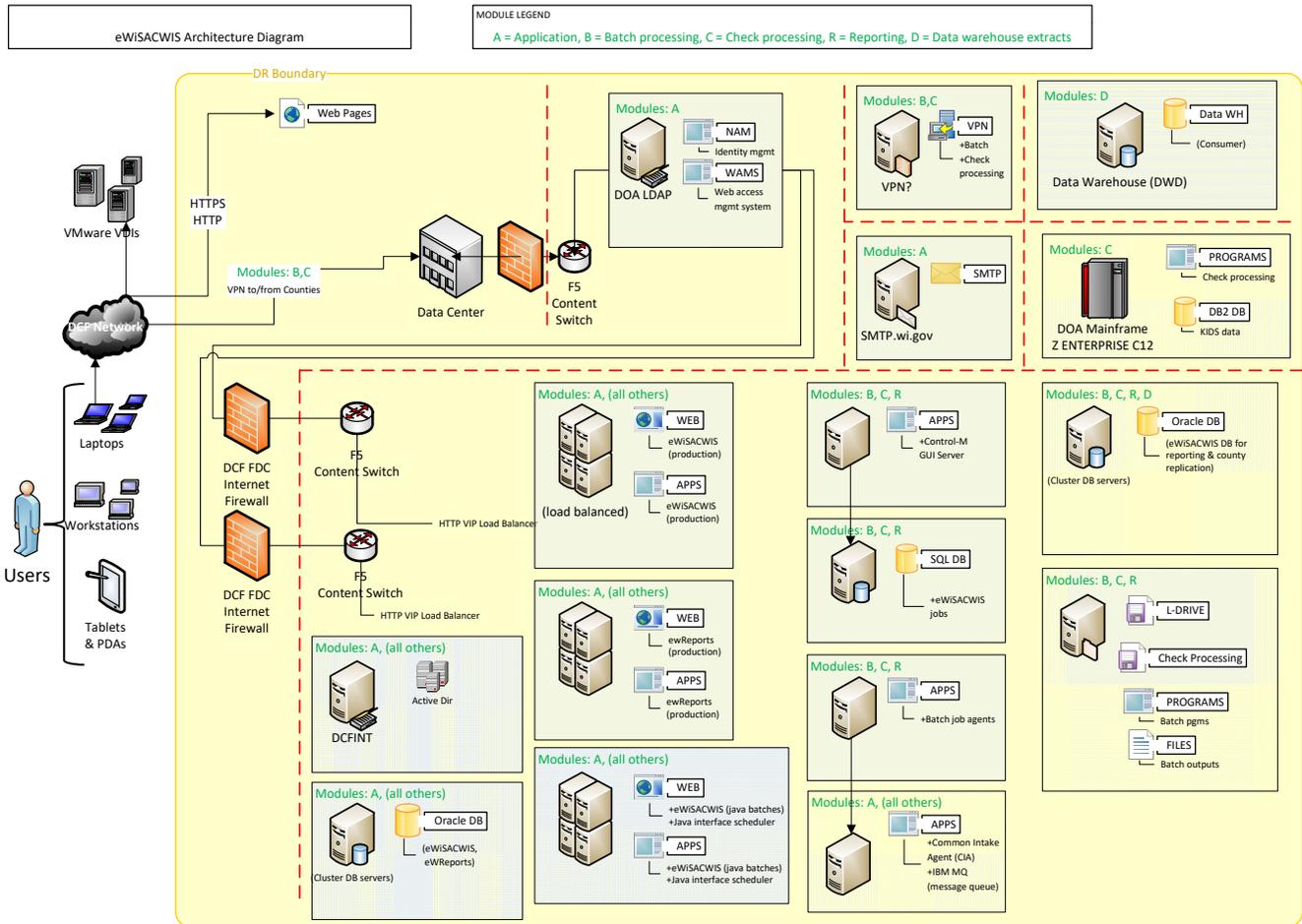
Software	eWiSACWIS Application
Java J2EE Enterprise Edition	Java is the basic platform-independent, object-oriented programming language used for writing web-based application development. Java J2EE 1.6 or better
IBM Websphere	The primary tool for the development of online components is IBM RAD. IBM WebSphere 7.0.0.35 or better
Web Services	The application utilizes many web services in order to interface data with other applications
JavaScript	JavaScript is used to tie the user-interface components together. While the use of JavaScript is minimal, it is used consistently across the system in order to perform routine tasks such as setting conditional data values and to communicate data between modal pages. Using JavaScript in this manner improves the system performance on the client side and eliminates timing dependencies on the client workstation.
HTML/DHTML	The application has a very rich user interface. Some of the complex HTML/DHTML aspects that enable this rich user interface include stackable DIVs, the use of modal windows and modeless windows, JSP includes, and event-handler processing.
Iframes	The online architecture was developed with system performance as a high priority. Iframes is one component developed to provide better performance. The system uses Iframes for light server communication to save network overhead and ease of development. For example, when the user selects a data toggle on the desktop, a request is made to the server via an Iframe so only the small request information is sent to the server, not the entire desktop page. This design allows for a large reduction of network traffic and improves system performance.

<b>Software</b>	<b>eWiSACWIS Application</b>
Jakarta Struts	<p>The Jakarta Struts Framework Struts 1.3 is the core for the entire online Application framework. Struts is an open-source, Java-based framework developed by Jakarta which is a branch of the Apache foundation. The Struts framework is built on collection of rich, lean and industry standard technologies to improve developer productivity. The framework also enforces strong pattern based development for consistency across the development environment.</p> <p>Struts have been written for any web application using MVC pattern. Extensions were developed to provide additional functionality to add to the rich User Interface that is key to system usability for the system.</p>
JSP	The Java Server Pages of the application provide the “view” component of the Struts model-view-controller architecture
Oracle 12c	Oracle (tables, triggers, and views) is the database management system. The application is data intensive. The SQL behind the scenes drives the online application, the batch application, and the system reports.
Oracle Stored Procedures	To address functionality shared between the batch processing and the online processing, a set of Oracle stored procedures was developed. This ensures that common processing is coded and located in a single place.
JDBC	JDBC is used by the online components to access the Oracle database. Using JDBC within the application, system developers can write and execute standard Oracle SQL statements within the system.
SQL Developer	SQL Developer empowers developers and DBAs to be more productive by providing an intuitive graphical user interface to Oracle. SQL Developer is a powerful, low-overhead tool that makes PL/SQL development faster and easier and simplifies database administration tasks.
PL/SQL	All database triggers, functions and stored procedures are written in PL/SQL
IBM MQSeries	IBM’s MQSeries provides the technology base of the interfaces with the counties using messaging and queuing.
LDAP Security	Integration components were developed to enable end users to be authenticated by Novell Access Manager (NAM)

<b>Software</b>	<b>eWiSACWIS Application</b>
Microsoft Office products	<p>The system integrates with and leverages Microsoft Office products to enhance system functionality and provide the needed functionality to the end users.</p> <p>Microsoft Word is used for document processing needs. Data is transported from the application and automatically pre-filled into Word templates, increasing the productivity of the users of the system. Additionally, the development team incorporated the Microsoft Word spell-check functionality across the system, enabling the user to perform spell check on any standard text input field.</p> <p>The system also interacts with Microsoft Excel by allowing the user to download information into spreadsheets.</p>
Visual Basic/Active X/ Microsoft Word Integration	<p>Active X is used to provide features like spell check and office automation need interaction with Microsoft Word and to Internet enable the office automation component of the application. Visual Basic was used to create the Active X components.</p> <p>The use of this technology allows transfer of data to the client by means of HTTP(s) and not putting any additional firewall holes or burden on the infrastructure. The only requirement is a licensed version of Microsoft Word 97 or higher on the client. The Internet standard distribution mechanism is used to install the ActiveX control on the client workstation.</p>
Merant Microfocus Cobol	<p>All of the application's offline components were developed using the Merant Microfocus Cobol product. The batch architecture provides the functionality to execute all offline processing. Although this processing is not as apparent to the end user, it is a critical component of the overall system.</p>
Crystal Reports	<p>Crystal Reports is used for both ad hoc reports and some regularly scheduled operational reports</p>
PVCS	<p>PVCS is used as a version control manager for code and documents</p>
E-mail Protocol	<p>Certain integration components were developed to enable the system to send e-mail to the system users. The implementation of this is via a standard SMTP message/SMTP server.</p>
Finalist (Address Verification)	<p>Integration components were developed to enable the application to call a Finalist Web Service that is hosted by the Department of Administration</p>
Cherwell	<p>Cherwell is the State's problem and change tracking system</p>

Software	eWiSACWIS Application
Business Objects	Business Objects is used as the primary software platform for a data repository (dWiSACWIS)

### eWiSACWIS Architecture Diagram



### Supported Browsers

eWiSACWIS currently supports only Microsoft Internet Explorer, versions 7 through 11, in a Windows 7 Professional environment. It supports Microsoft Internet Explorer versions 10 and 11 in compatibility mode only. There is an effort underway to complete a “browser neutrality” project aimed at supporting the most recent versions of Internet Explorer, Edge, Firefox, Safari, and Chrome. There is currently no timetable for completion of this project.

### ***Mobile Technology Support***

The eWiSACWIS application supports mobile use through the use of a VDI VM Ware app for iPad devices. The application does not support mobile application standards as published by the World Wide Web Consortium (W3C)<sup>4</sup> <http://www.w3.org/standards/webdesign/mobilweb>

### ***End User Support***

eWiSACWIS application architecture is supported, maintained, and updated through an agreement between the State of Wisconsin Department of Children and Families and CGI, a vendor headquartered in Montreal, Quebec, Canada with a local presence in Madison, WI. The DCF also maintains an internal support group of one manager, one project manager, one quality analyst and five business analysts for the purpose of interpreting and managing development efforts required by legislation or program changes.

## ***6. eWiSACWIS to CCWIS Comparison***

### ***2016 CCWIS Rule Compliance***

<b>CCWIS Required Function/Capability - § 1355.50 - 1355.59<sup>5</sup></b>	<b>Compliant?</b>
Reusability/Portability - § 1355.53	No
Autonomous Data Exchanges - § 1355.52(e)(1), § 1355.53(a), § 1355.57(a)(2)(ii) and (b)(2)(ii)	Partially
Modular design, industry design standards, mobility enabled and multi-platform capable - § 1355.53	Partially
Data quality monitoring and maintenance plan supporting continuous improvement - § 1355.52(d)(1)(i)	No
Cost effective and efficient support and development - § 1355.52	Yes
State-determined size, scope, and functionality - § 1355.52	Yes
Must be state data source for all federally required and other agency reports - § 1355.51	Yes

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<sup>4</sup> (Worldwide Web Consortium, 2016)

<sup>5</sup> (United States Code, 2016)

## ***eWiSACWIS Stakeholder Feedback***

Department of Children and Families eWiSACWIS users agree in significant numbers that they would like to see the following issues addressed concerning the eWiSACWIS system. The sources for these comments were 47 interview sessions, with more than 200 system users and supervisors. Several common themes revealed themselves through the participants' comments. These comments were not reviewed with eWiSACWIS support staff for validation and/or explanation.

### ***eWiSACWIS presents too much electronic bureaucracy***

A primary theme that surfaced during interviews was the complexity of the system, and the challenges mastering its use. Interview participants also pointed to the quality of data entry documentation associated with eWiSACWIS as being a barrier to effective system use. In some cases, the system requires multiple points of data entry for the same information. Efforts should be made to remove duplicate pages, improve the ability of managers to monitor worker activity, and improve case assignment capability for tribal child welfare workers. There were multiple comments about the need to receive documents in paper format, scan and attach them to eWiSACWIS records, then print them and send them via mail (or package service) to court systems or other agencies (with any returned information starting the paper-scan-file process anew). The overall process could benefit from a document management system that allows for metadata capture and secure document sharing. There should be a better way to correct mistakes, delete unused records, and reopen cases closed accidentally.

### ***The overall system interface needs improvement***

The system is burdened by its dependence on only three versions of one browser. The browser neutrality effort underway now should consider the most commonly used operating system/browser combinations, make the system easier to navigate, remove unused screens and components, and create more task automation. Formatted documents are difficult to read. More forms should prefill with information already available. Every field should have a "pop up" help menu that provides an explanation and guidance for filling it out. The application should include a "live" save capability that automatically saves work between screens, as opposed to requiring the use of a manual "save" button.

### **The development, testing and release processes merit reexamination and updating**

There is considerable concern that the current development cadence of three releases a year (in February, June and October) is inadequate to meet the changing needs of policy and practice. Multiple interviewees commented that they felt that they were always rushing to be included in a release schedule, or being asked to delay needed updates until the next release. The overall outcome of the current schedule is that a change requested in January might not be realized until October, if at all. The design and development process would benefit from more direct contact between program staff and support vendor. Changes to the system seem to be more driven by the technology team than the program staff – and that should be reversed.

### **DCF must build youth justice capability into eWiSACWIS**

The existing eWiSACWIS lacks a youth justice module that can accept data from other sources, especially court systems, and prevention programs. There is a significant need to track and understand the confluence between child welfare and youth justice contacts. Any youth justice system should create a connection between youth justice data stored in eWiSACWIS and the ability to act on that data.

### **Everyone needs improved mobile functionality**

Mobile use of the eWiSACWIS system is currently limited to laptop or iPad VDI-app presentation. There is an appetite for small, specific use, mobile apps that supplement field activities such as navigating to multiple locations, filling out inspection checklists, and adding photographs to case files. The mobile interface for the overall application should use responsive design practices to dynamically adapt application content to screen size. The overall perception from staff that a mobile app can provide all eWiSACWIS functionality is a potential problem, that should be addressed in future status communications from DCF management.

### **Reporting flexibility is very limited**

Reporting should be more automated. The reporting function might be better served by a separate portal that is populated by the Data Analytics group, but presented as part of eWiSACWIS in appearance. Many system users indicate that they spend hours reformatting reports after they are system-created and correcting inaccurate data that appears in them. Report formats are perceived as lacking a uniform design standard and the flexibility to be easily integrated into existing documents produced by WI counties.

**DCF should create a client and provider portal**

Future efforts should include the creation of a portal for providers and clients to do the non-secure portions of their work. A portal should allow for client appointment notifications and reminders, designed around mobile technology requirements. DCF should consider a broad view of potential portal users that includes children, parents, foster parents, schools, police, criminal justice representatives and other providers, as well as a direct (but logged) communication portal for case workers to exchange messages with youth being served.

**Training activities and resources are lacking**

DCF should support a formal training and onboarding program that is updated with each successive policy and system change. It should produce an organized library of training documentation that is accessible at all levels, including by county and tribal workers. Training materials should be updated on a frequent basis to account for policy, program, and technical changes. Many interviewees reported a steep curve for staff when learning how to use eWiSACWIS, with much of this knowledge “locked up” in random users’ personal notes or memories.

**Geolocation services and interfaces should be expanded**

The current Geographic Placement Resource System (GPRS) effort should be expanded to include real-time out-of-home care location and availability searches. Geotracking of caseworker travel routes and case management visits may be used to plan out more efficient routes.

**WI Indian child welfare directors and workers should have better representation in eWiSACWIS**

Tribal Child Welfare Directors expressed a significant desire to have more access to eWiSACWIS in the immediate future. While some tribal representatives indicated a continued reluctance on the part of their case workers to share any information with a State-owned system, most indicated that they would like to have more of an active role in managing information in eWiSACWIS. Barriers to this expanded access profile include technical and operational challenges. The system does not currently allow for case assignment and management organization that follows tribal child welfare structure, instead assigning all Indian Child Welfare (ICW) workers under the State’s representative. Child and Adolescent Needs and Strengths (CANS) entries present a specific problem for tribal case workers without access. In many instances, tribal case workers are travelling long distances to county offices to sit side-by-side with county workers to enter information.

## 7. CCWIS-Compliant Solution Options

Alternatives available to address eWiSACWIS deficits in CCWIS rule compliance fall largely into two broad categories: transition or replace. System replacement alternatives were derived from an examination of the CCWIS vendor landscape and information provided by DCF. The exploration resulted in 10 possible vendors that offer products and/or services in the child welfare sector. This report also identifies states that have implemented some of the vendor offerings to include in the analysis.

The evaluation process included a review of all materials made available through the State of California’s public-facing CCWIS-progress site at <https://techblog.ca.gov/2016/07/update-on-cwds-project/>, [collected reports from other state sources](#), and interviews with child welfare technology project stakeholders from the states of Colorado and Virginia.

Vendor	States Deployed
Accenture	Georgia, New York, Texas
Cambria Solutions	California
Case Commons	Indiana
CGI	Wisconsin , Florida, New Jersey, Ohio
Ciber	Arkansas
Deloitte	Alabama, Delaware, Washington, DC
DRC	Ohio, Tennessee, Colorado
IBM/Cúram	North Carolina, Alberta and Ontario
Infosys	Texas
Northrup	Arkansas
SAS	Virginia
Unisys	Indiana
<p>Note: This list the vendors may not reflect all possible product vendors or system integrators, but is a compilation of vendors providing CCWIS products and services in recent history. See also – <a href="#">vendor list</a></p>	

### ***Partner Option Evaluation***

Vendor responses to an RFI released by DCF on May, 15, 2017 were evaluated against a requirements matrix, and scored according to their stated ability to meet the needs of a complete CCWIS-compliant child welfare information management system. It is important to note that the process was not a comprehensive review of all capabilities, and **will not substitute** for a thorough evaluation process. The evaluation was a preliminary exploration of the systems and partners that are available as solutions. The goal was to provide insight into the currently available products and services, not evaluate those options for complete suitability.

### ***Impact Assessment***

An analysis of system replacement options resulted in the following identified benefits, risks, and preliminary discussion of replacement options.

<b><i>Potential Benefits</i></b>	<b><i>Value Added</i></b>
Updated solutions tend to be built using newer technologies and a scalable, service-oriented architecture	Future upgrades and changes will be less expensive in the long-term
Newer solutions are specifically designed to support child welfare and case management functions by experts in the field	WI DCF will be able to benefit from advances in child welfare information system developments made in other states
A service integration approach will allow introduction of best-of-breed solution alternatives and the option to incrementally deploy selected improvements	CCWIS compliance can be achieved with no increase in FTE headcount
Data migration provides opportunities for data cleansing and data model improvements	Creation of a data quality and improvement plan (currently lacking) can be part of the process
Vendors have dedicated staff to ensure their products is kept current and meets federal reporting requirements	No increase in DCF headcount required to service a new system (potential for reassignment of headcount)
Some desired functionality might be available “out-of-the-box” with a newer solution	Faster deployment of future modules

<b><i>Potential Risks</i></b>	<b><i>Possible Mitigation Actions</i></b>
Migrating to a new solution introduces risk of losing critical business logic that has been incorporated into eWiSACWIS	Design the system with the cooperation of stakeholders and a trusted partner
New system interfaces and underlying business process changes will require extensive change management	Mandatory training for all users (early and often), and create a long-term training plan and budget
Extensive knowledge of existing eWiSACWIS represented in current staff will be reduced, making the state dependent on vendor for new training and knowledge transfer	Create a formal training process and materials that are continuously updated – include an “expiration date” on all materials and update items when they expire
Data migration and system customization efforts always prove to be costly and time-consuming with unpredictable results	Create a test migration environment and consider a data “scrubbing” project in advance of any data migration
Timing of other planned initiatives (TBD) that have eWiSACWIS dependencies may be impacted by a long replacement effort.	Start transition planning early, and use modular approach to “grow” the final system one module at a time  Start with the data layer, create the universal data exchange first

The option to replace eWiSACWIS with an entirely new product would have the following, significant, impacts to DCF operations – extending to the entirety of the 72 counties in the State of Wisconsin.

<i>System Area</i>	<i>Impacts</i>
Technology/Architecture	<p>Potential need for new hardware purchases</p> <p>Despite intentions to leverage state’s current infrastructure, some software changes may be required</p> <p>Potential for cost increases associated with maintenance and/or licensing</p>
System Interfaces	<p>Existing interfaces to other DCF, state, and federal systems would need to be modified and tested before deployment; this could add substantially to effort and time.</p>
Reporting	<p>New reporting capabilities would need to be assessed to ensure ability to address existing county, state and federal requirements</p> <p>Some custom reporting would likely be required as report output and terminology may be inadequate and/or unfamiliar</p>
Training	<p>User training and change management likely to be significant</p> <p>Years of experience gained from using and supporting current system would need to be regained over time</p>
Support	<p>Dedicated, knowledgeable FTE support required through system implementation and first year of use</p>
Data Quality	<p>Data Quality post-migration would need to be re-assessed and validated</p> <p>Data Integrity of new system would require validation through extensive testing</p> <p>Data quality plan must be implemented</p>
System Functionality	<p>New system is likely to address some of the existing functionality gaps, but may require customization to meet Wisconsin needs</p> <p>Degree of customization may complicate future support &amp; system upgrade</p> <p>Lack of customization may complicate user acceptance and process re-engineering</p>

## ***8. Other Opportunities/Considerations***

### **Federal Matching Funds**

The final CCWIS rule includes provisions for states to receive federal matching funds to assist with ACF-approved transition or development projects. This opportunity includes the possibility of receiving matching funds for the planning, design, development, and implementation phases of CCWIS projects. The matching rate is 50%. Any new development for a SACWIS system is not eligible for federal matching funds. This provision is outlined in the final rule §1355.57 – Cost allocation for CCWIS projects, and detailed in the ACF presentation on the CCWIS Final Rule Overview.

[https://www.acf.hhs.gov/sites/default/files/cb/ccwis\\_overview\\_presentation.pdf](https://www.acf.hhs.gov/sites/default/files/cb/ccwis_overview_presentation.pdf)

### **Public Consulting Group**

<http://www.publicconsultinggroup.com/index.html>

Public Consulting Group, Inc. (PCG) is a management consulting firm that primarily serves public sector education, health, human services, and other state, county, and municipal government clients. Established in 1986 with headquarters in Boston, the firm has extensive experience in all 50 states, clients in six Canadian provinces, and a growing practice in the European Union. PCG has five designated practice areas which each have a proven track record of achieving desired results for clients. The firm often combines resources from two or more practice areas to offer a multidisciplinary approach to solve a client's challenge or pursue an opportunity.

### **18F Civic Consultancy**

<https://18f.gsa.gov/>

18F is an office within the [General Services Administration](#) (GSA) that collaborates with other agencies to fix technical problems, build products, and improve how government serves the public through technology. Projects are designed and built in public, using open source, open data, and open APIs. Working transparently promotes a process that allows project teams to develop faster, make better decisions, provide code for many others to reuse, and keep costs low.

## **Select Hub**

<https://selecthub.com/>

Select Hub provides assistance with software evaluation and selection. Select Hub's business analytics leaderboard offers a detailed look at 36 top contenders in the business analytics vendor community. The top-level page shows data on price, platform compatibility, and logistics around deployment. It also offers a community rating for each of these platforms. Users can filter and arrange views according to their needs. In addition, Select Hub also offers live help with selection analysis. By calling a phone number, those looking to research business analytics software can speak with qualified professionals who can help them determine what's best for their companies.

## **Content Accessibility Compliance**

Section 508 of the Rehabilitation Act (29 U.S.C. 794d) as amended by the Workforce Investment Act of 1998 (P.L. 105-220) provides guidance for the creation and harmonization of standards of accessibility for web content, and applications. It directs that these items should be designed for audiences that include visual, hearing, cognitive, speech, mobility and neural disabilities. There is an opportunity for Wisconsin to build a CCWIS that follows these guidelines in both its internal facing application experience and a public-facing client experience. The eWiSACWIS website does not comply with these guidelines.

## 9. Evaluation Details

### *Alternatives Summary*

The evaluation yielded five broad options identified for DCF for consideration as future-state alternatives:

**One:** Continue to use eWiSACWIS as it has been used in the past, including development methodology, technology, and application profile and do not modify the system to achieve CCWIS rule compliance

**Two:** Transition eWiSACWIS, using a new, modular, approach, using the existing technology base to modernize the application to meet CCWIS rule requirements and modern application development best practices and position the system for future program growth and innovation

**Three:** Purchase and/or customize a CCWIS rule compliant system (or series of modules) from one or more vendors to completely replace eWiSACWIS functionality, achieve CCWIS compliance, and position the system for future program growth and innovation

**Four:** Engage a vendor to build a new CCWIS-compliant system from scratch, with limited use of the existing eWiSACWIS technology components, while redeveloping the overall business logic of the system at the same time

**Five:** Build a new CCWIS-compliant system from scratch, using internal resources, after creating an DCF internal software development and support team and expanding staffing as necessary

Ultimately, the analysis determined that there were two primary alternatives, with variations on each:

**Continue to use Existing System** - This alternative builds upon a practice already employed by DCF to modify and improve eWiSACWIS to meet the changing needs of its users and beneficiaries. Changes and extensions to the system have been supported for some time and the general consensus among stakeholders, management and users is that a more focused effort is required to enable better interfaces, data presentation/management, and ultimately service outcomes. Variations of this option include choosing to use eWiSACWIS without CCWIS compliance.

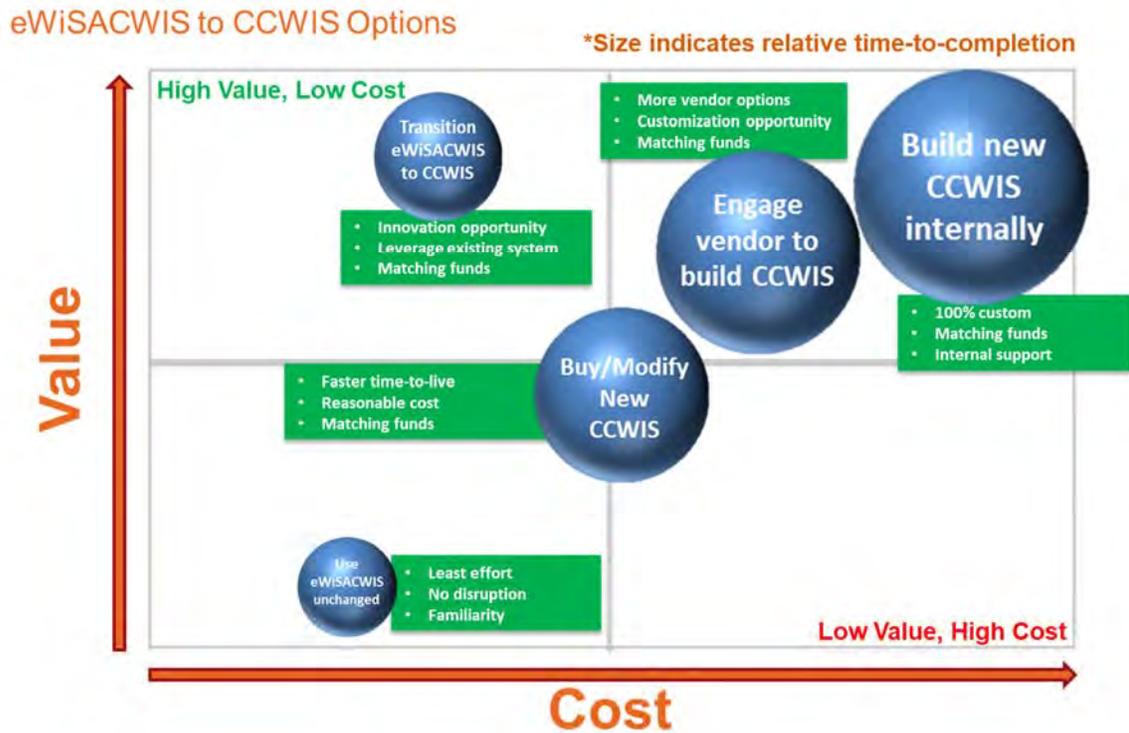
**Transition Existing System** - Update the existing eWiSACWIS system with a series of modules supplied and maintained by external vendors to modernize the application suite, provide level of “future-proofing” for program, technology, and legislative changes, as suitable. Redefine the concept of the term “module” to include interlocking software applications, external services, data exchange relationships, mobile service apps, and transparent connections to other child welfare information management systems. Transition options lie along a spectrum that allows for everything from redefining the existing agreement with eWiSACWIS’ current vendor to an evaluation and replacement process. Variations of this process include purchasing a new CCWIS, engaging a vendor to build a new CCWIS, and building a new CCWIS internally.

## Options Comparison Matrix

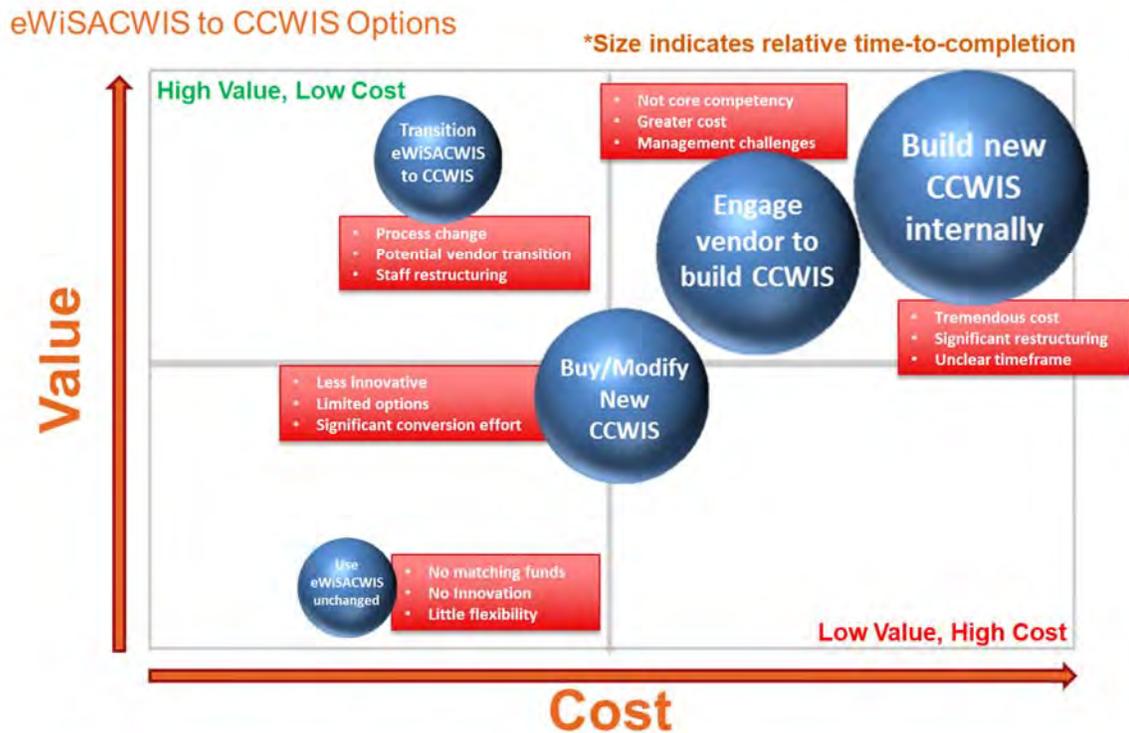
Alternatives were assessed for potential positive and negative impact.

<i>Alternative</i>	<i>Pros</i>	<i>Cons</i>
1. Continue using eWiSACWIS unchanged (non-CCWIS)	<ul style="list-style-type: none"> <li>• Unchanged cost</li> <li>• Familiar system</li> <li>• Existing vendor relationship is positive</li> </ul>	<ul style="list-style-type: none"> <li>• May receive reduced federal matching rate</li> <li>• May reduce base budget support</li> <li>• Less flexibility</li> <li>• Lacks innovation</li> <li>• Limited communication with other systems</li> <li>• Negative user perception</li> </ul>
2. Transition eWiSACWIS into a rule-compliant CCWIS	<ul style="list-style-type: none"> <li>• Potential for an enhanced federal matching rate</li> <li>• Opportunity to redefine business processes</li> <li>• Leverage existing technology</li> <li>• Update application business logic</li> <li>• Opportunity to redefine vendor relationship</li> </ul>	<ul style="list-style-type: none"> <li>• Suggests a “reboot” of the development process</li> <li>• Limited vendor options</li> </ul>
3. Buy/modify a new rule-compliant CCWIS	<ul style="list-style-type: none"> <li>• Potential for an enhanced federal matching rate</li> <li>• Shorter timeline (configuration vs. customization)</li> <li>• Leverage marketplace competition</li> </ul>	<ul style="list-style-type: none"> <li>• High Cost</li> <li>• Limited choices</li> <li>• Limited modular options</li> </ul>
4. Partner with other states to attain a new rule-compliant CCWIS	<ul style="list-style-type: none"> <li>• Potential for an enhanced federal matching rate</li> <li>• Reduced cost over independent effort</li> <li>• Shorter development timeline</li> <li>• CCWIS-rule supported (portability)</li> </ul>	<ul style="list-style-type: none"> <li>• Dependent upon cooperative effort</li> <li>• Effort required to discover and engage partner</li> <li>• Development and testing differences</li> <li>• Complex governance issues</li> </ul>
5. Engage vendor/consultant to build a new, rule-compliant, fully custom CCWIS	<ul style="list-style-type: none"> <li>• Potential for an enhanced federal matching rate</li> <li>• Complete ownership and control</li> <li>• Tailored functionality</li> </ul>	<ul style="list-style-type: none"> <li>• High cost</li> <li>• Higher long-term support costs</li> <li>• Software ownership in question</li> </ul>
6. Build a new rule-compliant CCWIS internally	<ul style="list-style-type: none"> <li>• Potential for an enhanced federal matching rate</li> <li>• Complete ownership and control</li> <li>• Tailored functionality</li> </ul>	<ul style="list-style-type: none"> <li>• High cost</li> <li>• Requires staff restructuring and expansion</li> <li>• Does not follow DCF best IT practices</li> </ul>

## Option Advantages



## Option Disadvantages



## 10. Costs

The current eWiSACWIS system consumes \$6,000,000 annually in support and development costs through a contract with CGI, and 6 full-time employees, representing more than 12,000 hours of work effort. This represents costs exclusively associated with eWiSACWIS activities, and includes all bug fixes, program updates, and system enhancements.

### 10.1. eWiSACWIS Support and Enhancement Costs

The current support and maintenance process includes budget for minor changes, but does not account for the modernization of the application, major policy and legislative changes, the addition of new service areas (i.e. youth justice), or any expansion of eWiSACWIS' technology profile (i.e. mobile technology, enhanced data exchanges). Based on budget estimates, the 2017 support and maintenance cost is expected to increase by 2% each year from 2018 through 2021.

Resource	2017 Cost Projection
eWiSACWIS Section Chief	\$175,000
eWiSACWIS Business Senior Analyst x2	\$300,000
eWiSACWIS Services Specialist x3	\$450,000
eWiSACWIS Services Consultant	\$170,000
BITS Child Welfare Technology Vendor	\$5,000,000
<b>Total</b>	<b>\$6,095,000</b>

The DCF's eWiSACWIS team activity is 100% dedicated to system support, maintenance, and development. The team does not represent a purely technical resource; it leverages high-level business analysts to guide the development process in conjunction with contracted resources from CGI.

## ***10.2. eWiSACWIS Transition Costs***

The full cost of transitioning eWiSACWIS into a CCWIS-compliant application can only be determined once a complete product roadmap has been established. The roadmap should include a comprehensive list of DCF's goals for the system, and clear declaration of the agency's commitment to CCWIS compliance and service innovation. This cost should be viewed in light of the potential advantage of securing federal matching funds for CCWIS planning and development efforts if Wisconsin decides to comply with the new guidelines. The eWiSACWIS product roadmap development process can provide a base for a transition cost analysis. Both efforts should begin in January of 2018, and be completed by the end of June.

## 11. Recommended Approach

Wisconsin should pursue transitioning eWiSACWIS to a CCWIS rule-compliant information management system and engage in information-sharing with other states that have similar population and child welfare service profiles. DCF should leverage the work done to-date in other states, follow the CCWIS rule guideline of portability, and provide an example of how such collaboration is a valid approach to meeting the needs of children and families. The tone of this collaboration should be one of practice and knowledge sharing, not combined bargaining for services. Wisconsin has already taken a leadership role in fostering communication between states engaged in CCWIS projects through the creation of a CCWIS Navigator website and monthly discussion group, and that work should be expanded. Wisconsin, Colorado, and Minnesota are good examples of states with similar child welfare profiles, as indicated below, although between 5 and 10 states are currently participating in monthly teleconferences hosted by Wisconsin.

### Wisconsin, Colorado, and Minnesota Child Welfare Profile Comparison

Characteristic	Wisconsin	Colorado	Minnesota
<b>Population (2016)</b>	5,778,708	5,540,545	5,489,594
<b>Population Density (2016)</b>	105/sq. mi	52/sq. mi	68.9/sq. mi
<b>Counties</b>	72	64	87
<b>Median Household Income</b>	\$55,425	\$66,596	\$68,370
<b>Tribal Reservations / Designated Communities</b>	11	2	11
<b>Child Welfare Reports Referrals (annually)</b>	76,422	88,695	72,022
<b>Children Entering Out-of-Home Placement</b>	5,255	5,407	6,621
<b>Child Welfare Information System Users</b>	5,000	4,500	6,400
<b>Child Population (ages 0-17)</b>	1,294,626	1,225,609	1,276,148

Sources: (Wisconsin Department Of Children and Families, 2016) (Colorado Department of Human Services, 2016) (Minnesota Department of Human Services, 2017) (U.S Department of Commerce, 2017) (U.S Department of Health & Human Services, 2017) (U.S. Census Bureau, 2017)

## ***12. Final Comments***

Overall, this report concludes that the pending CCWIS guidelines represent a tremendous opportunity for the state of Wisconsin and the Department for Children and Families. The department has the opportunity to revitalize its application technology, improve the business logic of eWiSACWIS, embrace innovative development and application management techniques, modernize its application architecture and reformulate its application development release schedule. There is additional opportunity to add superior mobile application access, complete document management capabilities, and more accessible information access for the children and families that the DCF serves.

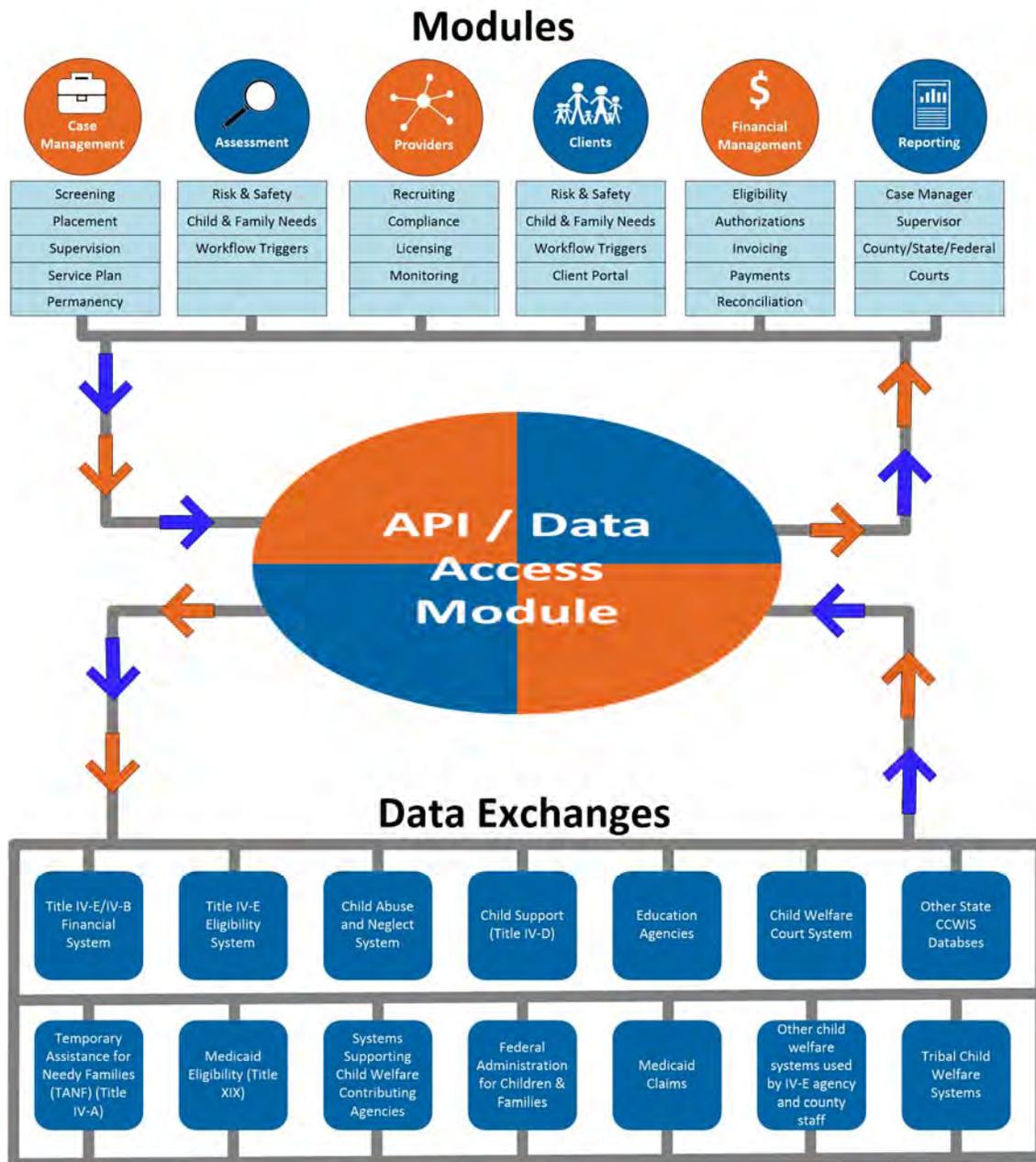
All of this opportunity comes with a realization that the existing application management process should be reexamined and adjusted to take advantage of a potential “application reset” that will be possible during the transition of eWiSACWIS from a SACWIS-compliant application to one that embraces the newer CCWIS guidelines. Successfully completing a transition will require changes to technology, process, skillsets, and application design practices. It will require greater inter-agency cooperation, and the exploration of new trusted relationships with the court systems. It strongly suggests that the greatest success will be achieved if Wisconsin leverages the work of other states to supplement its strong history of child welfare information system leadership.

Wisconsin should take advantage of the opportunity to work within the new guidelines and receive matching CCWIS development funds from the ACF. The final recommendation is that Wisconsin leverage every opportunity to choose innovation over status quo, which will lead to better service for the families and children that DCF serves.

## ***13. Appendices***

### 13.1. Module and Data Exchange Layers

A modular approach suggests the creation of a restructured data access layer (module) that will provide the underlying foundation for each internal module of the updated application and a leveraging of the overall repository for external exchanges.



## ***13.2. DCF Acronyms and Definitions***

AFCARS means Adoption and Foster Care Analysis and Reporting System

Agency or State Agency means the Wisconsin Department of Children and Families (DCF) or any other agency of the State of Wisconsin, as defined by Wisconsin Statutes

API means Application Program Interface

Appeal means the second level of appeal process whereby the aggrieved Vendor or organization representing the appropriate state employee collective bargaining unit may appeal the denial of a Protest to the Secretary of the Department of Administration

BITS means Bureau of Information Technology Services

CARES means Client Assistance for Reemployment and Economic Support system is the State of Wisconsin's case management system for the Child Care, W2, Food Share, and Medical Assistance programs

Change Order means any change, alteration, or variance in plans and specifications of RFP #, Section 1.3.1-Scope of Project, or the resulting contract

Children and Family Service Review (CFSR) means on January 25, 2000, the HHS published a final rule in the Federal Register to establish a new approach to monitoring State child welfare programs. Under the rule, which became effective March 25, 2000, States are assessed for substantial conformity with certain Federal requirements for child protective, foster care, adoption, family preservation and family support, and independent living services.

Contracted Personnel means Contractor's employees or other personnel (including officers, agents and subcontractors) provided by the Contractor to perform work under this Contract

Contractor means proposer awarded the contract

Corrective Action Plan means a plan developed by the Contractor and approved by the State that the Contractor must follow in the event of any threatened or actual use or disclosure of any Confidential Information not specifically authorized by this Agreement, or in the event that any Confidential Information is lost or cannot be accounted for by the Contractor

CPS means Child Protective Service

DCF means the Wisconsin Department of Children and Families

Department means the Department of Children and Families

DES means Division of Enterprise Solutions

DHS means Department of Health Services, State of Wisconsin

DHTML means Dynamic Hyper Text Markup Language

Division means a sub-unit of a state agency; an organizational unit internal to a state agency

DMCPS means Division of Milwaukee Child Protective Services, State of Wisconsin

DOA means Department of Administration, State of Wisconsin

DR means disaster recovery, which is the process, policies and procedures related to preparing for recovery or continuation of technology infrastructure critical to an organization after a natural or human-induced disaster

DSP means Division of Safety and Permanence

eWiSACWIS means web-based Wisconsin Statewide Automated Child Welfare Information System

FMS means Fiscal Management System

HTML means Hyper Text Markup Language

Iframes means Inline Frames

IT means Information Technology

JDBC means Java Database Connectivity

JDK means Java Development Toolkit

JSP means Java Server Pages

KIDS means Kids Information Data System, which is the state wide automated child support system

LDAP means Lightweight Directory Access Protocol

MBE means Wisconsin-certified Minority Business Enterprise

Municipality means any county, city, village, town, school district, board of school directors, sewer district, drainage district, vocational, technical and adult education district, or any other public body having the authority to award public contracts (s. 16.70(8), Wis. Stats.). Federally recognized Indian tribes and bands in this state may participate in this agreement per ss. 66.0301(1) and (2), Wis.Stats.

NCANDS means National Child Abuse and Neglect Data System

OCX – OLE means (Object Linking and Embedding) Control Extension

OS means Operating System

Personally Identifiable Information means an individual's last name and the individual's first name or first initial, in combination with and linked to any of the following elements, if that element is not publicly available information and is not encrypted, redacted, or altered in any manner that renders the element unreadable: Other types of personal identifiable information include: an individual's Social Security number, driver license number or state identification number, the number of the individual's financial account, including a credit or debit card account number, or any security code, access code, or password that would permit access to the individual's financial account, the individual's DNA profile, and/or an individual's unique biometric data, including fingerprint, voice print, retina or iris image, or any other unique physical representation, and any other information protected by state or federal law.

Proposer/Vendor means a company or individual submitting a proposal in response to this RFP

Proposal means the complete response of a vendor submitted on the approved forms and setting forth the vendor's prices for providing the services described in the RFP

Protest means the first level of the appeal process under sec. Adm 10.15 of the Wisconsin Administrative Code to the procuring agency (i.e. the Department of Administration) whereby a Bidder or organization representing the appropriate state employee collective bargaining unit aggrieved in connection with this solicitation or the Notice of Intent to Award a Contract may protest those actions

PVCS means Program Version Control Manager

RFP means Request for Proposal

RTF means Rich Text Format

Services - means all actions, recommendations, plans, research, customizations, modifications, documentation, and maintenance and support provided by the Contractor necessary to fulfill that which the Contractor is obligated to accomplish under this Contract

State means the State of Wisconsin

System Availability means availability is usually expressed as a percentage of uptime in a given calendar month exclusive of planned maintenance windows. In a given calendar month, the number of minutes of unplanned downtime is tallied for a system; the aggregate unplanned downtime is divided by the total number of minutes in a month exclusive of planned maintenance windows, producing a percentage of downtime; the complement is the percentage of uptime for the purpose of this contract. It should be noted that uptime and availability are not synonymous. A system or a server can be up, but not available, as in the case of a network outage when the server or system and/or business applications are not accessible to the users.

Vendor means any individual, company, corporation, or other entity that responds to this RFP

### 13.3. Terms and Definitions

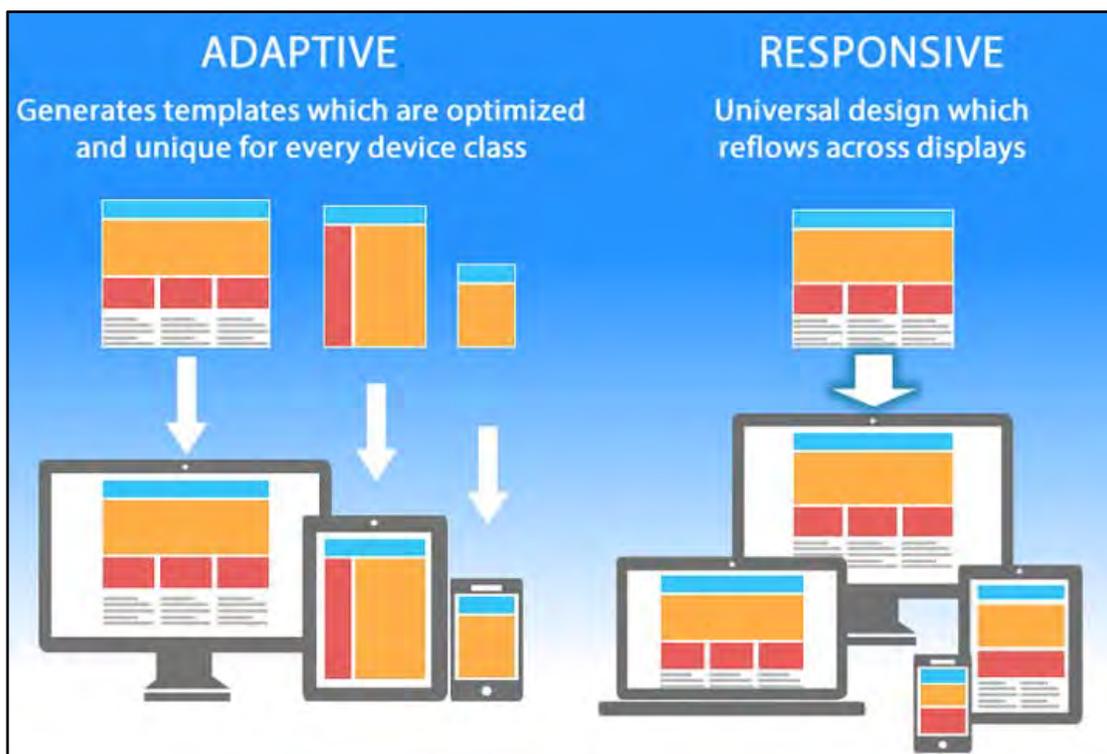
#### Responsive Design / Adaptive Design

Responsive Design - Responsive web design (RWD) is an approach to web design aimed at allowing desktop webpages to be viewed in response to the size of the screen or web browser one is viewing with.

A site designed with RWD adapts the layout to the viewing environment by using fluid, proportion-based grids, flexible images, and CSS3 media queries, an extension of the @media rule, in the following ways:

The fluid grid concept calls for page element sizing to be in relative units like percentages, rather than absolute units like pixels or points. Flexible images are also sized in relative units, so as to prevent them from displaying outside their containing element. Media queries allow the page to use different CSS style rules based on characteristics of the device the site is being displayed on, most commonly the width of the browser.

Responsive web design has become more important as the amount of mobile traffic now accounts for more than half of total internet traffic. Responsive web design is an example of user interface plasticity.



See also: <https://baymard.com/blog/responsive-web-design>

## 13.4. 45 CFR 1355.51 - Definitions applicable to (CCWIS)

### § 1355.51 Definitions applicable to Comprehensive Child Welfare Information Systems (CCWIS).

The following terms as they appear in §§ 1355.50 through 1355.59 are defined as follows -

*Approved activity* means a project task that supports planning, designing, developing, installing, operating, or maintaining a CCWIS.

*Automated function* means a computerized process or collection of related processes to achieve a purpose or goal.

*Child welfare contributing agency* means a public or private [entity](#) that, by contract or agreement with the [title IV-E agency](#), provides [child abuse and neglect](#) investigations, placement, or child welfare case management (or any combination of these) to children and families.

*Data exchange* means the automated, electronic submission or receipt of information, or both, between two automated data processing systems.

*Data exchange standard* means the common data definitions, data formats, data values, and other guidelines that the [state's](#) or [tribe's](#) automated data processing systems follow when exchanging data.

*New CCWIS project* means a project to build an automated data processing system meeting all requirements in [§ 1355.52](#) and all automated functions meet the requirements in [§ 1355.53\(a\)](#).

*Non-S/TACWIS project* means an active automated data processing system or project that, prior to the effective date of these regulations, ACF had not classified as a S/TACWIS and for which:

ACF approved a development procurement; or

(ii) The applicable [state](#) or [tribal agency](#) approved a development procurement below the thresholds of [45 CFR 95.611\(a\)](#); or

(iii) The operational automated data processing system provided the data for at least one AFCARS or NYTD file for submission to the federal system or systems designated by ACF to receive the report.

*Notice of intent* means a record from the [title IV-E agency](#), signed by the [governor](#), tribal leader, or designated [state](#) or tribal official and provided to ACF declaring that the [title IV-E agency](#) plans to build a CCWIS project that is below the APD approval thresholds of [45 CFR 95.611\(a\)](#).

*S/TACWIS project* means an active automated data processing system or project that, prior to the effective date of these regulations, ACF classified as a S/TACWIS and for which:

ACF approved a procurement to develop a S/TACWIS; or

(ii) The applicable [state](#) or [tribal agency](#) approved a development procurement for a S/TACWIS below the thresholds of [45 CFR 95.611\(a\)](#).

*Transition period* means the 24 months after the effective date of these regulations.

(b) Other terms as they appear in [§§ 1355.50](#) through 1355.59 are defined in [45 CFR 95.605](#).

[[81 FR 35479](#), June 2, 2016]

This is a list of [United States Code](#) sections, Statutes at Large, Public Laws, and Presidential Documents, which provide rulemaking authority for this CFR Part.

This list is taken from the [Parallel Table of Authorities and Rules](#) provided by [GPO \[Government Printing Office\]](#).

It is not guaranteed to be accurate or up-to-date, though we do refresh the database weekly. More limitations on accuracy are described at the GPO site.

## United States Code

### U.S. Code: Title 42 - THE PUBLIC HEALTH AND WELFARE

[§ 620 - Repealed. Pub. L. 109–288, § 6\(a\), Sept. 28, 2006, 120 Stat. 1244](#)

[§ 621 - Purpose](#)

[§ 622 - State plans for child welfare services](#)

[§ 623 - Allotments to States](#)

[§ 624 - Payment to States](#)

[§ 625 - Limitations on authorization of appropriations](#)

[§ 626 - Research, training, or demonstration projects](#)

[§ 627 - Family connection grants](#)

[§ 628 - Payments to Indian tribal organizations](#)

[§ 628a - Transferred](#)

[§ 628b - National random sample study of child welfare](#)

[§ 670 - Congressional declaration of purpose; authorization of appropriations](#)

[§ 671 - State plan for foster care and adoption assistance](#)

[§ 672 - Foster care maintenance payments program](#)

[§ 673 - Adoption and guardianship assistance program](#)

[§ 673a - Interstate compacts](#)

[§ 673b - Adoption and legal guardianship incentive payments](#)

[§ 673c - Repealed. Pub. L. 109–239, § 4\(c\), July 3, 2006, 120 Stat. 512](#)

[§ 674 - Payments to States](#)

[§ 675 - Definitions](#)

[§ 676 - Administration](#)

[§ 677 - John H. Chafee Foster Care Independence Program](#)

[§ 678 - Rule of construction](#)

[§ 679 - Collection of data relating to adoption and foster care](#)

[§ 679a - National Adoption Information Clearinghouse](#)

[§ 679b - Annual report](#)

[§ 679c - Programs operated by Indian tribal organizations](#)

[§ 1301 - Definitions](#)

[§ 1302 - Rules and regulations; impact analyses of Medicare and Medicaid rules and regulations on small rural hospitals](#)

**Title 45 published on 2015-11-20**

## 13.5. Files and Links

2017 eWiSACWIS Data Dictionary



ew\_dictionary.html

Administration for Children and Families Executive Guide



Adobe Acrobat Document

eWiSACWIS Glossary of Terms



Glossary-eWiSACWIS-Terms.pdf

KPMG CCWIS Final Rule Analysis



Adobe Acrobat Document

2015-19087 Federal CCWIS Rule (Proposed)



Adobe Acrobat Document

CCWIS NPRM Overview from the Children's Bureau



Adobe Acrobat Document

2016-12509 Federal CCWIS Rule (Final)



Adobe Acrobat Document

Tribal Child Welfare Directors Commentary



WI Tribal Welfare Directors 03232017.p

## 13.6. Sources

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### **13.7. Equal Opportunity Statement**

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### **13.8. Revision History**

<b>Version</b>	<b>Summary</b>	<b>Author</b>	<b>Date Modified</b>
1.0	Initial Draft	Robert Cacace, Encore Consulting	4/1/2017
2.0	Full revision	Robert Cacace, Encore Consulting	5/1/2012
2.1	Added Financial Analysis	Robert Cacace, Encore Consulting	5/10/2017
2.2	Added Architecture Diagram	Robert Cacace, Encore Consulting	5/15/2017
2.3	Citations Added and Updated	Robert Cacace, Encore Consulting	6/8/2017
2.4	Updated State Research	Robert Cacace, Encore Consulting	6/12/2017
3.0	Updated Financial Analysis	Robert Cacace, Encore Consulting	10/30/2017
3.1	Updated Final Conclusions	Robert Cacace, Encore Consulting	11/15/2017
4.0	Final Report Completion	Robert Cacace, Encore Consulting	12/1/2017