

NCCSD Systems Modernization Committee

Systems Modernization States Lessons Learned Webinars

Certification – 10/22/2021

South Carolina

Richard Maxwell, Project Manager
Richard.Maxwell@dss.sc.gov

Systems Modernization States Lessons Learned Certification is Easy!

I have news, the date isn't changing...

I literally spent 20 minutes with the Certification Manager, printed out a Fed Cert Requirements RTM and never talked to him again.

I can't believe this is real!

A successful certification starts with requirements management.

South Carolina Child Support

- Department of Social Services (DSS) is the IV-D agency for SC
 - Administrative State
 - 131k IV-D cases, 32k non-IV-D cases
- Child Support Services Division (CSSD) of DSS Administers the IV-D Program
 - Central Office, Four Regional Offices and 46 County Clerks of Court
- Several Functions Performed by County Clerks of Court
 - Scheduling of Hearings (admin, RTSC)
 - Cash Payments Accepted in the Counties
 - Majority of Child Support Payments Were Handled in the Counties Prior to PACSS
 - Many Rural Counties Do Not have Dedicated IT Departments

South Carolina CFS Project



- PACSS is Part of the CFS Project
 - Family Court Case Management System (FCCMS)
 - SDU Implemented and Certified Concurrently to PACSS
- Previous Attempts to Implement a Certified System were Unsuccessful
 - New DSS Management Team for PACSS Project
 - State Team Fully Engaged in Running the Project and in Oversight of Vendor
 - Regular Reporting to the Governor and Legislature
 - *Certification was Top of Mind Every Day*
 - Full Time IV&V Presence
- Palmetto Automated Child Support System (PACSS) Certified on 10/1/2019
 - Started August 2015
 - Transfer system from DE
 - Replaced Mainframe Application and 46 Unique County Systems
 - Completed On Time and In Budget



SC PACSS Project

- Rollout consisted of Pilot and Four Regions
 - Rollout initiated August 2018 and completed September 2019
- Data Conversion Effort
 - 47 Unique Projects: 46 Counties and Central
- X-Large Outreach Program with Stakeholders
 - Clerk of Court Committee, ITAC, OCM, SMEs from CSSD
- Servers Hosted at the State Data Center
 - Leverage State Data Center Resources
 - Leverage State Disaster Recovery Services
 - Production and Development

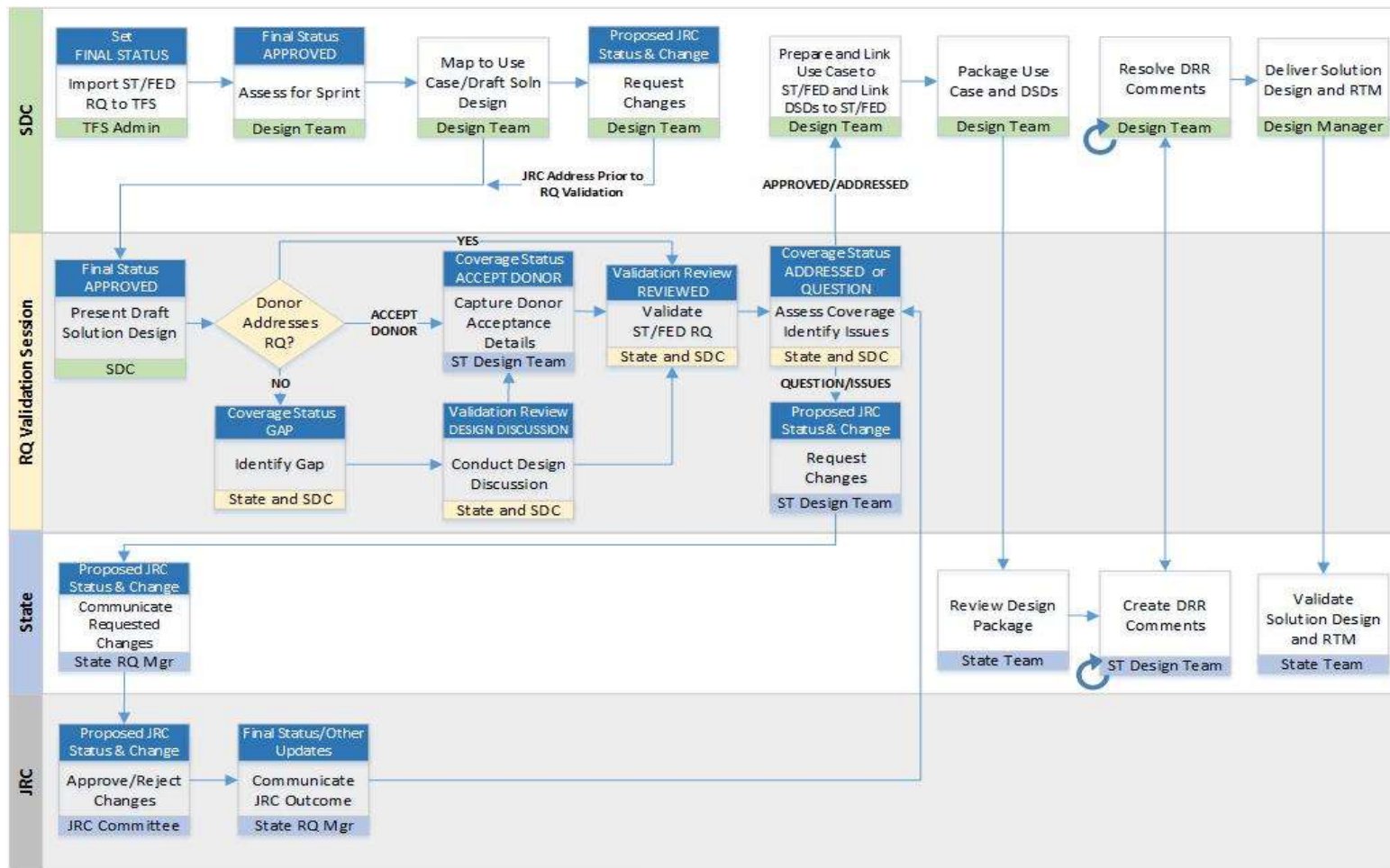
Certification: Planning

- RFP included Requirements for Federal Certification Specialist in addition to Federal Certification Manager on the State team.
 - Certification Resources Involved with the Project from the Start
 - Previous Experience in Other States
 - Participated in Requirements, Design and Testing
- RFP Included Requirements Management Plan
 - Developed by SDC
 - Approved by the State Team

Certification: Planning

Requirements Management Plan

- Fed Requirements were Loaded and not Decomposed
- A Requirements Traceability Matrix (RTM) could be generated at any time to show the status of requirements Regarding Design, Development, Test
- The Joint Review Committee (JRC) Controlled the Requirements
 - Consisted of State and SDC Members
 - Requirements had Owners
- Requirements Linkage
 - Requirements Linked to Components (Designs)
 - Components linked to Code
 - Test Scenarios Linked to Requirements
- Test Scenarios were Written to the Requirements
 - If the Desired Functionality Changed, the Requirements had to be Changed before the Test Cases were Updated
- Key in Organizing all Requirements and Keeping the Most Important in Focus
 - Certification Requirements and Bugs were fast tracked
- RTM Built Daily, Monitored Weekly, Trended Monthly



FINAL STATUS Values: APPROVED, DEFERRED, DUPLICATE, MERGED, REJECTED, and RESEARCH
Terminating Status Values: DUPLICATE, MERGED, AND REJECTED
 Only **APPROVED** requirements proceed through the SDLC
 RESEARCH requirements are managed by the State/JRC until APPROVED or other status identified

Certification: Planning

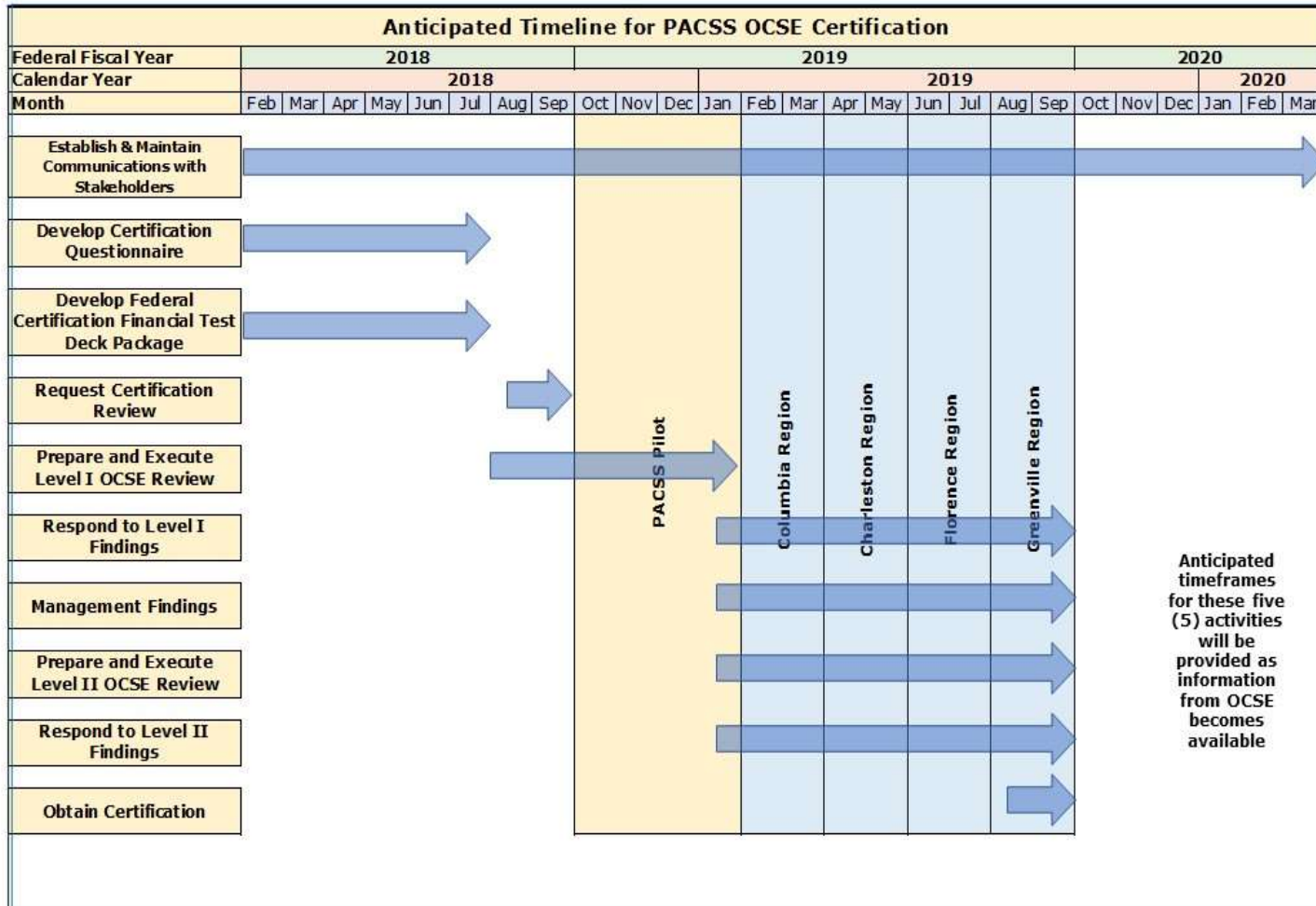
- PACSS Federal Certification Plan Developed Before Pilot
 - Developed by SDC
 - Reviewed and Approved by the State Team
 - Documented Which Certification Guide was Used
- As much as possible Leveraged the Certification Effort in DE
 - Updated DE Federal Certification Questionnaire for use by PACSS

Certification: Executing

- State Tested Early and Often
 - 20 State Testers for the Whole Project
 - 25 BAs for Testing and 20 UAT Testers
 - Tested after every Sprint
 - Testing Targeted Current Sprint And Previous Sprints
- Defects
 - ~2500 bugs in State
 - ~100 in UAT
 - ~50 Field Test
- Converted Data and Test Data for all Testing
- UAT Scripts Linked to Fed Cert Requirements
 - Reports Presented to OCSE Showing When and How Often Fed Requirements Tested

Certification: Executing

- Federal Test Deck Executed Multiple Times Throughout the Project
 - 3X by the Software Development Contractor (SDC)
 - 1X by State Test Team in UAT
 - Final Test by SDC to Submit to OCSE
- Certification Narrative Response and Documentation of Federal Financial Test Desk Submitted Prior to Pilot
- Phase I Review
 - Conducted after Completion of Pilot
 - The State Team had multiple practice sessions to prepare
 - Certain Functionality was not in Production
 - CSENet, generation of Intergovernmental forms, eIWO, Lottery Intercept, instate FIDM,
 - Discussed Bugs in Current System Before Observed
- Phase II Review
 - “Mock” Review after 2nd of four Regional Rollouts
 - Visited multiple Counties, SDU, State Data Center, State DR Site
 - Official Phase II Review after State-Wide
 - Demonstrated Bug Fixes and New Functionality and Responses to Findings



Certification: Executing

- Multiple Practice Sessions to Prepare for Audits
 - *Stick to the Point* in Requirements Demonstrations
 - Use Common Cases to Flow Through Requirements
 - If Batch Needed, Demonstrated Similar Case Where Batch Had Already Run
 - “Expert” SMEs Presented for Each Functional Area
 - One Screen with Fed Cert Requirements
 - One Screen with PACSS
 - One Screen for State Policy Documents, Backend Data Access, etc.
- Collaboration with OCSE
 - Requirements Clarification Throughout the Project
 - Strategies for Current Situation in State
 - Quarterly OCSE Reviews Were Helpful for Preparation
 - Previewed Areas
 - Provide Project Status, Progress, Issues
 - IV&V Reports and Responses Provided Ongoing Updates

Lessons Learned

- The State Team Should be in Charge of the Project
- Communicate the Project Vision to all Stakeholders Often
 - Involve Stakeholders in Design, Testing, Verification
- Establish and Track WBS
 - Don't Complete Schedule Tasks Until Package is Delivered
- Identify and Track the Minimum Viable Product (MVP)
- Establish Meaningful and Accurate Dashboards to Measure Progress
- Honest Reporting of Project Status and Issues
 - Develop Corrective Action Plans when Status Falls Behind
 - Use Risk Planning Often to Anticipate and Mitigate Issues

Lessons Learned

- Use Requirements Management to Obtain a Common Understanding of the Final Product
 - Cheaper to Resolve Disagreements and Misunderstanding Early
 - Base Test Scenarios on the Requirements
 - Enables Common Understanding
- Verify and Validate Design and Development Early and Often
 - Do Not Just Rely on SDC Testing