Pushing the Limits

Creating a Test Environment for CISS

It's getting close to the time to shake the tree, poke the boundaries, push the limits, and blow the lid off of the pan. In other words, it is nearly time to test Search Release 1. The CJIS Test team is preparing test scenarios and assembling a test team to ensure a smooth transition from the Test phase to Production.

Search Release 1 Testing will focus on validation of usability and business functionality of the CISS application, including the capability and conformance to state and national standards. It will also consider system access and security (Global Federated Identity & Privileged Management (GFIPM) and the CJIS Security Policy) in accordance with the Release 1 requirement documents.

Test Groups

Testing for Release 1 of the project will be broken out into three distinct test groups.

The first group, led by a Xerox team, will manage System and Integration Testing. The Xerox team will also be responsible for performance and stress testing prior to the final release into production.

The second group led by CJIS Test team will be responsible for System Testing and UAT. The team will validate that requirements were met prior to stakeholder validation. System Testing will begin on August, 2015 and continue to September, 2015.

The third test group, CJIS testers and business and information technology users from Judicial Branch Superior Court Operations (SCO), the Department of Correction (DOC) and identified law enforcement agencies, will be responsible for User Acceptance Testing (UAT). UAT (also known as Beta testing) is a process of verifying that a solution works and is acceptable to the user.

The goal for this group is to ensure that their ex-

Continued on Page-2
Pushing the Limits, continued from Page-1

Expections of data to be shared or accessed along with security, policy, and statute limitations are met prior to release into Production. Testing by this group will take place in a functional testing "war room," where testers can execute test cases under the supervision of the CJIS Test team. This war room will include workstations that can connect to CISS as well as to source systems.

UAT should be undertaken by a subject-matter expert (SME), preferably the owner or client of the solution under test, and provide a summary of the findings for confirmation to proceed after trial or review. Users of the application perform tests in line with what would occur in real-life scenarios.

The CJIS team will perform Usability Testing and Data Quality Validation as part of UAT when Xerox releases the software to CJIS from the Development stage. Usability Testing is a technique used to evaluate a product by measuring the ease of use of a specific product from a user’s perspective. It gives direct input on how real users use the system and focuses on measuring a product’s capacity to meet its intended purpose. Data Quality Validation is the process of ensuring that a program operates on clean, correct and useful data. It uses validation rules to check for correctness, meaningfulness, and security of data that are input to the system.

User Acceptance Testing will focus on user scenarios, and for this release will include testing and validation of screens, features and functions, interfaces, system administration, and the Audit Log along with validation of expected source system data from Offender Based Information System (OBIS) and Paperless Re-Arrest Warrant Network (PRAWN). In addition, data validation will be performed with the assistance of the Technical team to ensure a high degree of confidence in both the accuracy and completeness of data being replicated from source systems into CISS. This testing will include validation of the replication process from the source to the staging database and then from the staging database into CISS.

Testers will check functionality defined in the business requirements and use cases for end users to search, browse, refine, and retrieve information in a secure, accurate and consistent manner for newly added search sources. To ensure that the requirements are met for intended users, security levels, and searches, testers will test the Audit Log.

Testing also involves checking business processes for viewing data and ensuring that statutory restrictions are functioning properly.
CJIS was busy with obtaining Design approvals from, and reviewing requirements with Xerox and stakeholders, preparing for Release 1 User Acceptance Testing, and preparing for CISS training in July.

Release 1, PRAWN, OBIS and the Portal User Interface entered into the Development stage with Xerox. It will remain in Development until early August when it will enter the System Test stage. The CJIS Project management team received design approval from stakeholders for Release 2, Uniform Arrest Report (UAR) and Misdemeanor Summons Notices. For Release 3, Xerox and stakeholders finalized the requirements for saving a Search. The Protective Order Registry (POR) design review was also completed for Release 3. Work began on UAR and Misdemeanor Summons Arrest Full Workflow requirements for Release 4.

The CJIS Project Management team gave a presentation of CISS at the June 9 Connecticut Police Chiefs Association (CPCA) Regional Meeting – Capitol Region. The audience consisted of the Chiefs of Police from the Hartford region police departments. The CJIS Project Management team also met with CPCA and began discussions on resource requirements for the CISS Project.

The CJIS Help Desk Manager and the Public Safety Liaison met with Connecticut Distance Learning Consortium (CTDLC) to review the Black Board Learning Management System. The system will provide training, user provisioning and certification for CISS users. Informal discussions began with representatives of the Police Officer Standards and Training Council (POSTC) on providing a combination instructor-led/computer aided training program for POSTC CISS Certification. One consideration for future training might combine remote instructor-led and computer based training. This would allow students to train at their offices and still have the ability to interact with an instructor and other classmates.

To prepare for testing Release 1, the CJIS Test Lead began reaching out to affected agencies to assign technical and business experts for User Acceptance Testing.

For July, the CJIS and Xerox teams will be holding design review sessions for Release 3 – Criminal Motor Vehicle System (CRMVS) and for Portal and User Interface Initial Saved Search. Work will also begin on Release 4 UAR and Misdemeanors - Consuming and Publishing with agencies.

CJIS worked with the Department of Administrative Services (DAS) on a contract with KT International, Inc. to enable Capitol Region Council of Governments’ CT:CHIEF RMS to connect with CISS. This contract was signed and work has begun.

CJIS is also working on the final details of a contract with Accucom (formerly known as Hunt) to connect to CISS. CJIS has approached three other RMS vendors, TriTech, NexGen and New World, for RMS certification.

Progress was made on the Records Management System (RMS) network connections. Seventy-six police departments have purchased routers for the CISS project. Of the seventy-six departments, fifty-six departments are connected to the state network with initial connectivity. There are twenty-two police departments slated to connect to CISS for Search Release 1. Eleven of the twenty-two have completed connectivity for Search Release 1, with ten more in the process of connecting.
**Business Email Option for CISS Training**

CJIS is working on setting up a new online training system for new CISS users for Search Release 1 of the CISS Project Plan. As part of the process to sign up for training, all agencies will be required to have a business class email address. This will allow administrators to enroll users in CISS training and to receive notifications and updates on the system status and recertification. Additionally, individual CISS users will need to have an email address for CISS notifications and status updates.

In preparing for CISS training and certification, Hank Lindgren, the CJIS Public Safety Officer, noticed that some local police departments did not provide all of their employees with email accounts or did not have access to an email account and that some administrators are using personal or generic accounts for email. Using personal email for business raises critical privacy and security issues. Additionally, using a personal email account for business opens that account to be subject to subpoena in civil and criminal actions.

A viable option for those agencies that do not and will not in the foreseeable future have access to a business class email system is the FBI’s Law Enforcement Enterprise Portal (LEEP). LEEP provides access to a resource (i.e., Law Enforcement On-Line (LEO)) that provides the ability to create a law enforcement email account on secure servers for law enforcement business. The only membership criteria is that the person be affiliated with a criminal justice system, or be a member of an intelligence community or a military or governmental agency.

If your agency or department does not have access to a secure email system, you can send an e-mail to leoprogramoffice@leo.gov or call (304) 625-5555 to begin the application process. Authorization from the department head or supervisor and verification of employment is required. For more information go to https://www.fbi.gov/about-us/cjis/leep-law-enforcement-enterprise-portal. ✤

### Testing Methods

Methods for testing consist of both positive and negative, data driven, smoke, black box, and performance.

**Positive testing** is when valid data and a valid claim is applied to a system to check its behavior and ensure that it works as expected with positive input.

**Negative testing** is when invalid data and a valid claim is applied to a system to check its behavior and ensure that it works as expected with negative input.

**Data driven testing** uses a table of conditions directly as test inputs and verifiable outputs as well as the process where test environment settings and control are not hardcoded. In the simplest form, the tester supplies the input from a row in the table and expects the output that occurs in the same row. The table typically contains values that correspond to boundary or partition input spaces. In the control methodology, test configuration is “read” from a database.

**Smoke testing** is high level software testing, ascertaining that the most crucial functions of a program work. It does not include the fine details.

**Black-box testing** examines the functionality of an application without peering into its internal structures or workings.

**Software performance testing** involves testing software applications to ensure they will perform well under their expected workload. The focus of Performance testing is **Continued on Page-5**
The Testing Process

Testing begins with predefined test scripts according to requirements agreed upon by the stakeholders. The tester will proceed step-by-step to test each scenario, assigning a grade to each step, either pass or fail. If a step fails, the tester will identify and document any defects or exceptions in JAZZ (IBM’s extensible technology platform that helps teams integrate tasks across the software life cycle). The CJIS Test Lead will review the results of the tests at the end of each day and then forward defects and exceptions (D&Es) to the Xerox development team for their review. The following morning, there will be a defect triage meeting with Xerox, CJIS Project Managers, CJIS Test Lead, and key stakeholders to discuss the results of the prior day’s tests.

The Xerox Test team will execute, validate, and document performance testing just prior to release into Production. The CJIS Test and Project Management teams will review the performance metrics to ensure contractual obligations have been met prior to implementation into Production.

User Acceptance Testing begins in September, 2015 and continues to November, 2015. Upon successful completion of all testing, the CJIS Technical team will move the new code into the Production environment. Immediately following the completion of the code move, the CJIS Test team will perform cursory smoke tests to validate that the code has been successfully moved and that the system appears to be operating in a satisfactory manner. The CJIS Test Lead and Project Management team will decide at the conclusion of the smoke test on whether the system will be Production ready.

~ Meetings ~

**CJIS Governing Board Quarterly Meeting**
July 16, 2015 at 1:30 pm
Office of the Chief State’s Attorney
300 Corporate Place in Rocky Hill

**CISS Status Meeting**
July 22, 2015, 1:00 - 3:00 pm
99 East River Drive, 7th floor, Room 707
East Hartford

Happy Independence Day!