



U. S. ELECTION ASSISTANCE COMMISSION
VOTING SYSTEM TESTING AND CERTIFICATION PROGRAM
1225 New York Avenue, NW, Suite 1100
Washington, DC. 20005

2/12/2009

Carolyn Coggins, QA Director - Voting
iBeta Quality Assurance
3131 S Vaughn Way, Suite 650
Aurora, CO 80014

Re: Reuse of prior testing conducted by SysTest Laboratories

Dear Ms. Coggins,

This letter is regarding the reuse of certain portions of testing conducted by SysTest Laboratories as part of the testing campaign for the ES&S Unity 3.2.0.0. As the EAC indicated in its January 3, 2009 letter (attached) to ES&S and consistent with section 2.10.6. of the EAC's *Testing and Certification Program Manual*, the EAC has conducted a review and audit of certain portions of testing conducted by SysTest prior to SysTest's suspension. This review and audit was conducted in an effort to preserve any prior testing that could be relied upon as meeting the EAC's rigorous program requirements.

Based on this review and audit the EAC approves the following reuse of functional accessibility, maintainability, accuracy, and reliability testing conducted for the Unity 3.2.0.0. test campaign:

Functional, Accessibility, Maintainability, Accuracy, and Reliability Test Review

In order to determine the scope of the possible reuse of the functional, accessibility, maintainability, accuracy, and reliability testing conducted for the Unity 3.2.0.0. EAC technical reviewers conducted a full audit of all test plans, test methods, test cases, and test results related to the Unity 3.2.0.0. test campaign. This included a review of a document created by SysTest Labs that summarized all related testing conducted to date for the Unity 3.2.0.0. test campaign and provided the test results for that testing. As a result of this review and audit the EAC reached the following conclusions regarding the reuse of this testing:

- All functional, accessibility, maintainability, accuracy, and reliability testing outlined in the approved SysTest Unity 4.0 test plan is approved for reuse in the Unity 3.2.0.0 test campaign.

- As part of the remaining testing the EAC is tasking iBeta with testing and verifying that the Unity 3.2.0.0 system is in compliance with EAC RFI 2008-07 “0’ count to start the election”. This testing should be reflected in the test plan being developed by iBeta for the Unity 3.2.0.0 system.
- iBeta is also tasked with testing and resolving the discrepancies listed by SysTest under the following tests:
 - ◆ *GEN 02 – Straight Party*
 - ◆ *GEN 03 – Add Languages*
 - ◆ *PR101 – Pick-a-Party tests*

Please let me know if you have any questions regarding this decision regarding reuse of testing or the Unity 3.2.0.0 test campaign.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Hancock". The signature is fluid and cursive, with a large initial "B" and "H".

Brian Hancock
Director, Testing and Certification
US Election Assistance Commission

attachment: 1.3.2009 ltr. From EAC to ES&S
cc: Election Systems and Software (ES&S)



U. S. ELECTION ASSISTANCE COMMISSION
VOTING SYSTEM TESTING AND CERTIFICATION PROGRAM
1225 New York Avenue, NW, Suite 1100
Washington, DC. 20005

February 3, 2009

Ms. Sue L. Munguia
Director of Certification
Election Systems and Software (ES&S)
11208 John Galt Boulevard
Omaha, NE 68137

Sent via e-mail

Ms. Munguia:

This letter is being sent to address ES&S's questions regarding the reuse of testing by iBeta Quality Assurance (iBeta) that was conducted by SysTest Laboratories (SysTest) on the Unity 3.2.0.0. voting system prior to the suspension of SysTest's accreditation as an EAC Voting System Test Laboratory (VSTL). As you are aware, and as indicated in our letter to all EAC registered manufacturers (attached), section 2.10.6. of the EAC's *Voting System Test Laboratory Program Manual* allows for the reuse of prior testing at the EAC's discretion.

The EAC recognizes the unique circumstances the SysTest suspension has created and the need for the EAC to be diligent in reviewing and deciding on the reuse of this testing. Given these circumstances the EAC has corresponded on several occasions with both iBeta and ES&S to discuss the testing that was conducted by SysTest and its possible reuse. Per an email from Brian Hancock, Director, EAC Testing and Certification Program to Steve Pearson of ES&S dated November 21, 2008 (attached) the following plan is approved for the review of prior testing conducted by SysTest for possible reuse by iBeta in the testing of the Unity 3.2.0.0. voting system:

- The EAC has authorized the reuse of the hardware testing conducted by SysTest sub-contractors. iBeta will review the reports to confirm any failures resulting in engineering changes are documented and the reports document that all hardware ultimately passed.
- iBeta will audit a sample of the Technical Data Package (TDP) submitted to and reviewed by SysTest and provide a recommendation to the EAC regarding the need to conduct a more comprehensive review of the TDP. The EAC shall issue a decision regarding reuse of the PCA Document Review.
- iBeta will conduct a 3% review of the ES&S source code. This review will focus on important functional sections of the code in order to determine the depth and focus of source review conducted by SysTest. iBeta will provide a recommendation to the EAC

- regarding the reuse of the source code review conducted by SysTest. The EAC will then issue a decision regarding the reuse of the source code review conducted by SysTest.
- The EAC Technical Reviewers will review and assess the Functional, Accessibility, Maintainability, Accuracy, and Reliability test summary reports provided by SysTest on the DS-200, M650, AutoMARK VATs, Ballot on Demand printer, and Unity EMS software. The EAC will issue a decision regarding the reuse of this testing.
 - The Volume, Stress, Error Recovery and Security testing was not completed by SysTest; iBeta will perform this testing on the DS-200, M650, AutoMARK VATs, and Unity EMS software.
 - While applicable areas from the Unity v.4.0.0.0 Test Plan may be used, iBeta must issue a Unity v.3.2.0.0 test plan. The EAC will review and approve a full test plan provided by iBeta.
 - SysTest shall provide the appropriate test summaries for all items that are accepted for reuse.

If you should have any questions regarding these decisions or the testing to be conducted at iBeta please do not hesitate to contact me. Thank you for your time in resolving these issues.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian J. Hancock". The signature is fluid and cursive, with the first name "Brian" being the most prominent part.

Brian J. Hancock
Director, Testing and Certification

Attachment: 10.29.08 EAC ltr. to all EAC registered manufactures
11.21.08 email from Brian Hancock to Steve Pearson

cc: iBeta Quality Assurance
Steve Pearson, Election Systems and Software



U. S. ELECTION ASSISTANCE COMMISSION
VOTING SYSTEM TESTING AND CERTIFICATION PROGRAM
1225 New York Avenue, NW, Suite 1100
Washington, DC. 20005

October 29, 2008

To: Registered Voting System Manufacturers

From: Brian Hancock, Director
United States Election Assistance Commission
Testing and Certification Program

RE: EAC Issuance of Notice of Intent to Suspend SysTest, Laboratories Inc.

The U.S. Election Assistance Commission today notified (attached) SysTest Laboratories Inc. of its intent to suspend the laboratory based upon the suspension of its accreditation by NIST/NVLAP.

As a result of the notice, SysTest has three days to respond to EAC's action. If SysTest cannot refute the fact that NVLAP has suspended the laboratory the EAC will suspend SysTest and all testing under the EAC's program must be halted immediately.

Those manufacturers currently using SysTest as their lead VSTL for testing under the EAC's program should be aware of their options as provided for in the EAC's *Voting System Testing and Certification Program Manual* and the *Voting System Test Laboratory Program Manual*. Per section 4.3.1.2. of the EAC's *Testing and Certification Program Manual*, the EAC Program Director may, at his discretion, allow a manufacturer to change VSTL's provided the manufacturer shows good cause for the change. A manufacturer may request to change its VSTL by providing in writing:

1. A statement indicating the current VSTL conducting testing of their voting system.
2. The reasoning for the request to change VSTL (good cause).
3. A statement indicating the new VSTL the manufacturer wishes to test the voting system.
4. A proposed amended Voting System Certification Application reflecting the proposed VSTL change.

Upon receipt of this information, the EAC Program Director will issue written notice to the manufacturer regarding the proposed change of VSTL. Upon receipt of expressed written permission from the Program Director to change VSTLs the manufacturer may begin testing at the new VSTL in conformance with the EAC's program requirements. Manufacturers may also choose to halt testing until such time as SysTest Laboratories may become eligible to recommence testing of their voting system. Please be aware that SysTest MAY NOT recommence testing until such time as the EAC provides written notice to SysTest of their ability to begin testing again under the EAC's program.

Many of you may have questions regarding the testing already conducted by SysTest and its use by a new VSTL. Per section 2.10.6. of the EAC's *Voting System Test Laboratory Program Manual* a VSTL may accept prior testing conducted by another VSTL or third party laboratory provided certain conditions are met. These conditions are:

1. The discrete hardware or software component previously tested is demonstrably identical to that presently offered for testing.
2. The voting system standards and relevant EAC interpretations applicable to the prior and current testing are identical.
3. The test methods used are equivalent or identical to current test methods approved by the EAC.
4. The prior testing has been reviewed by the VSTL and no errors or omissions are apparent.
5. The adoption and use of prior testing is noted in the test plan and test report.

Please be aware that the lead VSTL is responsible for ensuring that the prior testing has met these requirements. Like all testing under the EAC's program, all prior testing remains subject to EAC technical review and approval.

If you have any questions regarding the possible suspension of SysTest Labs, the process for the changing of a lead VSTL, or the process for approval of prior testing please do not hesitate to contact myself or my staff.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian J. Hancock". The signature is fluid and cursive, with the first name "Brian" being the most prominent.

Brian J. Hancock
Director, Testing and Certification

From: bhancock@eac.gov [mailto:bhancock@eac.gov]
Sent: Friday, November 21, 2008 8:59 AM
To: smpearson@essvote.com; slmunguia@essvote.com
Cc: Carolyn Coggins; Gail Audette; lotero@eac.gov; mmasterson@eac.gov;
stephen.berger@suddenlink.net; tapernew@earthlink.net; dawn.mehlhaff@sbcglobal.net;
txtwatson@yahoo.com; tcaddy@sbcglobal.net
Subject: Reuse of Previous Testing for Unity 3.2.0.0

Steve,

As promised, this email responds to the questions posed by ES&S on the November 6th telecon, and the 11/19 follow-up email regarding reuse of testing done by SysTest.

The EAC recognizes the unique circumstances the SysTest suspension has created and the need for the EAC to be diligent in reviewing and deciding on the reuse of this testing. As a result of this discussions with both iBeta and the EAC's Technical Reviewers the EAC has reached the following decisions regarding the reuse of prior testing by SysTest :

- **All** hardware testing conducted by SysTest sub-contractor Percept Technology Labs is accepted and may be reused. Testing done by Wyle Labs is, of course, also accepted.
- iBeta will conduct an audit of the Technical Data Package (TDP) submitted to and reviewed by SysTest and make a recommendation to the EAC regarding the need to conduct a more comprehensive review of the TDP. Our hope and expectation is that this TDP audit will find that the prior review was valid, but given the circumstances surrounding the SysTest suspension, our need for assurance that the work was done correctly, and the need for iBeta to feel confident in accepting the results of the TDP review, we feel that the audit is necessary.
- iBeta will conduct a 3% review of the ES&S source code. This review will focus on important functional sections of the code in order to determine the depth and focus of source review conducted by SysTest. iBeta will then make a recommendation to the EAC regarding the reuse of the source code review conducted by SysTest. The EAC will then issue a decision regarding the reuse of the source code review conducted by SysTest.
- **Functional Test Cases:** It is our understanding that iBeta has been provided the test cases for review. iBeta will review the test cases, modify as they see a weakness or need, and present their test cases to EAC for review. Obviously we worked long and hard with SysTest on these test cases, so again, our hope is that the majority of the cases can be reused.
- **Unity 3.2 Test Plan:** Although the Test Plan for Unity 4.0 has now been approved, the EAC will not automatically accept and approve a Unity 3.2 Test Plan by default. While **applicable** areas from the Unity 4.0 Test Plan may be used, the EAC will review and approve a full test plan provided by iBeta.

We can discuss these and any other issues you may have on our conference call later today.

Thanks.

Brian Hancock
Director of Voting System Testing & Certification
U.S. Election Assistance Commission
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202-566-3100
www.eac.gov