



July 30, 2010

Brian Hancock
Director of Voting Systems Certification
US Election Assistance Commission
1225 New York Avenue, N.W.
Suite 1100
Washington, D.C. 20005

RE: VSTL Change Request

Dear Mr. Brian Hancock:

In accordance with Section 4.3.1.2 of the EAC's *Voting System Testing and Certification Program Manual*, ES&S respectfully requests a change in the lead VSTL for the remainder of the certification testing for Unity 5.0.0.0. With this letter, ES&S is requesting that the EAC permit the immediate transfer of Unity 5.0.0.0 testing from iBeta Quality Assurance ("iBeta") to Wyle Laboratories ("Wyle") for the remainder of the Unity 5.0.0.0 test campaign.

ES&S currently has three releases in test with iBeta, Unity 3.2.0.0 Revision 1, Unity 3.2.1.0, and Unity 5.0.0.0. While Unity 3.2.0.0 Revision 1 appears to be in the final stages of approval, test progress on Unity 3.2.1.0 and Unity 5.0.0.0 has been slow due to various factors including our observation of limited capacity of iBeta to efficiently complete testing on multiple projects simultaneously. It is our observation this is primarily due to resource constraints within iBeta. Testing was initiated at iBeta in August 2009 and October 2009 on Unity 3.2.1.0 and Unity 5.0.0.0, respectively. iBeta's original schedule showed completion of testing and EAC approval of Unity 5.0.0.0 in September 2010. The most recent published schedule calls for a completion in the June 2011 time frame, a nine month delay.

ES&S has held recent discussions with both iBeta and Wyle regarding the completion of the remaining testing for Unity 5.0.0.0 and have determined that Wyle currently has ample resource capacity to complete the remaining testing in a more efficient and timely manner and with less risk for further delays. A timely completion of 5.0 is critical to ES&S. Allowing the testing responsibilities to transfer immediately to Wyle for Unity 5.0.0.0 will alleviate the resource conflicts we are currently experiencing at iBeta and allow both Unity 3.2.1.0 and Unity 5.0.0.0 projects to progress and come to conclusion sooner.

It is ES&S desire for Unity 3.2.1.0 to remain at iBeta for the rest of its test campaign. The request for transfer of Unity 5.0.0.0 from iBeta to Wyle is a direct result of the issue of resource constraints and is not reflective of iBeta test quality or performance.

Page 1 of 2



Thank you for your consideration in this important matter.

Sincerely,

Steve M. Pearson
Vice President, Certification
Election Systems & Software, Inc.

Cc: Ken Carbullido, Senior Vice President, Systems



August 2, 2010

Brian Hancock
Director of Voting Systems Certification
US Election Assistance Commission
1201 New York Avenue, N.W., Suite 300
Washington, D.C. 20005
RE: Information Relevant to the ES&S VSTL Change Request for Unity 5.0.0.0

Dear Mr. Brian Hancock,

iBeta is in receipt of the ES&S request to change VSTLs under the provision of Section 4.3.1.2 of the *Voting System Testing and Certification Program*. This section permits the transfer of a project upon "demonstration of good cause". In ES&S' letter they assert that progress on Unity 3.2.1.0 and Unity 5.0.0.0 has been "slow due to various factors". Their letter goes on to state that it is ES&S' observation that the primary factor in the alleged slow progress is due to resource constraints on the part of iBeta. The only "demonstration of good cause" provided in the letter is the end date of the original Unity 5.0.0.0 project estimated schedule and the project estimated schedule which was delivered to the EAC just prior to our receipt of ES&S' letter.

ES&S' letter did not delineate the "various factors" which have resulted in the changes to the Unity 3.2.1.0 and Unity 5.0.0.0 schedules. These factors are not supportive of the ES&S' resource constraint observation. We'd like to outline some of these factors:

Unity 3.2.1.0:

- iBeta completed the initial round of testing and submitted discrepancies on schedule in September and October of 2009. A substantial number of discrepancies dealt with the system hardening. Multiple iterations of the hardening procedures were submitted with discrepancies rejected and new ones issued. Ultimately in the first quarter of 2010 ES&S addressed their resource constraint and brought in a consultant to perform a complete rewrite of the hardening procedures.
- In February ES&S added changes to DS200 for Florida and the ballot tolerance issue identified by Cuyahoga County. This added scope. The Regression testing was initiated but halted in April upon disclosure of the DS200 freeze identified in Cuyahoga. ES&S instructed iBeta to halt testing as they had to address this issue in Unity 3.2.1.0. Resumption of testing is currently in progress.

Unity 3.2.0.0 Rev 1

- This project started the second week of June. Version 2 of the test report was delivered to the EAC July 20th. Changes to scope included ES&S' exclusion, inclusion and exclusion of the Cuyahoga freeze. This change of scope resulted in project delays. iBeta was put on hold while ES&S internally worked through this change of scope which forced iBeta to rewrite portions of the test case and the test plan prior to submission to the EAC.
- This test effort is essentially completed.

Unity 5.0.0.0

- At the time of the first project schedule ES&S wanted a schedule but did not have an EAC accepted application. They also stated they wished to petition for reuse of the NY code. In this original schedule certification by NY was projected to be completed by the end of the 2009.
- In our discussion with ES&S last week we made it clear that iBeta expected to shave one to two months off the schedule with the addition of 2 COBOL reviewers and staff transitioned from other projects in the future. As they had not provided us with a schedule for delivery of the ERM code, our projection of six deliveries was a best guess. They have subsequently confirmed they would make two more deliveries

for a total of five. We made it clear that this schedule had contingency and that we expected to under promise and over deliver.

- The follow table outlines a sampling of differences between the two schedules that had substantial impact on the schedule.

Task	Original Projection	Current Projection	Comment
TDP Delivery	11/10/09	4/15/10	The initial TDP delivery was rejected because it did not address the scope of 5.0.0.0. The EAC supported iBeta's rejection. ES&S rewrote the TDP and delivered it in four additional deliveries
Completion of new 5.0.0.0 Source Code Review	2/12/10	7/22/10	Original projection was for two deliveries of code. We've had between five and seven deliveries of all code. 7/22/10 is the date on the schedule but at least one more delivery will be coming, due to outstanding code discrepancies.
Review of the NY Source Code	1/16/10	7/29/10	iBeta's original projection was dependent upon certification by NY occurring by the end of 2009. It was a placeholder and excluded any prediction of scope based upon the acceptance or rejection by the EAC. This limitation was known to ES&S and was a risk in their desired approach to the project.
ERM Code Review	Scope change	10/20/10	EAC required a 100% review of ERM. ES&S has delivered half of the code to date. It is coming in batches. We are about 75% completed with the third batch. Two reviewers were added last week and we expect this date to compress 3 to 4 weeks. This date also includes ES&S fixing the discrepancies identified in the code.
Application Approval by the EAC	11/10/09	2/26/10	iBeta requires an approved application to determine the scope of Unity 5..0.0.0. EAC told ES&S that they would not respond to questions about the DS850 until they had an accepted application. To date iBeta questions regarding the submitted scope remain unanswered by ES&S

iBeta does not agree with the ES&S's assertion that resource constraints exist within our organization. iBeta was the lead VSTL for three voting systems certified within a nine month time period. At the same time we were conducting another full certification effort as well as multiple state efforts. We just completed a start to finish modification test effort in 29 days for ES&S. The iBeta philosophy has been and remains that successful VSTL certification testing is about the quality of the tester and tester oversight. A successful test campaign is about having the right testers, who know the VSTL program and voting standards. This is not the same as QA testing. Qualified, well trained, and knowledgeable resources can do the job two to three times faster and correctly. The quantity of resources is not the key to success of an EAC certification test campaign. It is having the right resource and keeping their voting system testing skills current.

In the fall of 2009 ES&S advised iBeta the focus of internal resources was on Unity 5.0.0.0 development. It is our observation that the ES&S certification group had difficulty getting management to provide resources to support problems with EMS hardening in Unity 3.2.1.0. Had ES&S acquired the necessary expertise to address the hardening issues at this time, we believe it is likely certification would have been completed by the end of 2009. Had ES&S maintained the integrity of the original Unity 3.2.1.0 scope of certification, this project would have been completed in February even with the ES&S' internal delays. The decision to expand the scope of Unity 3.2.1.0 was a business decision that has resulted in the absence of a certified M100 and the EMS network in the 2010 election cycle. Expanding the scope Unity 3.2.0.0 Rev 1 to include the DS200 freeze was a business decision that ultimately was retracted resulting in the addition of weeks into the schedule.

As identified above significant changes have occurred to the original time estimates of Unity 3.2.1.0 and 5.0.0.0. We sympathize with ES&S' business requirements but from the beginning of each project they have under estimated the time to complete certification testing by basing it on their business needs and not the time

necessary to support their certifications. As the EAC is aware, the Unity 5.0.0.0 test campaign started with the rejection of their application. We believe delays are more appropriately traced to ES&S' internal preparations, resource allocations and assumptions about acceptability of materials.

We have nothing but the greatest admiration and respect for our colleagues at Wyle. As with ourselves, we believe them to be an efficient organization that performs quality work. It is our belief that all labs must adjust estimated schedules in the face of untimely deliveries additions of scope, and materials that are not found to meet requirements.

Please feel free to call on us with any additional questions.

Best Regards,

A handwritten signature in blue ink that reads "Carolyn E. Coggins". The signature is fluid and cursive, with a long horizontal stroke at the end.

Carolyn Coggins
QA Director Voting



August 9, 2010

Brian Hancock
Director of Voting Systems Certification
US Election Assistance Commission
1225 New York Avenue, N.W.
Suite 1100
Washington, D.C. 20005

RE: VSTL Change Request – Clarification Letter

Dear Mr. Brian Hancock:

This letter is in response to your August 3, 2010 email requesting additional information needed to assist you in the determination of ES&S' recent request for a lead VSTL change for the remainder of the Unity 5.0.0.0 certification testing. We have reviewed iBeta's response regarding this matter and have identified two very specific reasons we ask you take into consideration when making your determination.

1. iBeta's testing and certification procedures are highly dependent upon the availability of one or two key single individuals. Despite the hard work and dedicated effort of these individuals, this constraint simply cannot support ES&S' volume of work and give these projects equal priority. For example, all Test Plans and Test Reports for all EAC testing and certification projects are developed and managed by one individual for all paralleling projects in addition to day-to-day responsibilities for project account management, testing activity and resource management, EAC issue management, independent hardware Engineering Change Orders ("ECO's") assessments, independent hardware test lab management, etc. It is our experience this constraint has been a key factor in the lack of timely completions for our current projects.
2. Due to the diverse number of systems and broad range of customers we support, ES&S persistently has multiple certification projects and testing activities in progress at the same time. We currently have two 2002 FVSS EAC certified systems, PES Assure 1.2 and Unity 3.2.0.0, that will require continued enhancements and modifications and VSTL testing support into the foreseeable future.

ES&S currently has four open EAC testing campaigns in various stages of completion, Unity 4.0.0.0, Unity 3.2.0.0 Revision 1, Unity 3.2.1.0, and Unity 5.0.0.0. Each of these systems will result in an EAC certification and also will require changes into the same foreseeable future. Once certified, and as iBeta referred to in their August 2, 2010 response letter, we are also dependent upon the VSTLs for a significant volume of ongoing hardware ECO assessments, environmental testing, and ongoing state certification test support and special projects.

Page 1 of 2



Lastly, ES&S also has various new products in development now that we will be adding on top of these releases in 2011. These systems will all be evolving and operational in parallel with each other.

Given these facts, and ES&S' need to have multiple active testing and certification projects in parallel, it is our intent for the 2002 FVSS baseline systems to remain at iBeta while the 2005 VVSG baseline systems will reside at Wyle. This is the only way we can see we will be able to meet our immediate and future customer and product development needs. Experience is showing that one lab simply cannot handle or juggle all of the ES&S products all in parallel.

Please let me know if you have further questions or would like to meet in person to further discuss. Thank you for giving this important matter your immediate attention.

Sincerely,

Steve M. Pearson
Vice President, Certification
Election Systems & Software, Inc.

Cc: Ken Carbullido, Senior Vice President, Systems



U. S. Election Assistance Commission
Voting System Testing and Certification Program
1201 New York Avenue, NW, Suite 300
Washington, DC. 20005

August 18, 2010

Steven M. Pearson
Vice President, Certification
Elections Systems & Software, Inc.
11208 John Galt Boulevard
Omaha, NE 68137

Dear Mr. Pearson,

This letter constitutes the Election Assistance Commission's (EAC) formal response to the Voting System Test Laboratory (VSTL) change request submitted by Election Systems & Software, Inc (ES&S) dated July 30, 2010 (attached). Your correspondence of that date specifically requested that ES&S be permitted, in accordance with Section 4.3.1.2 of the EAC *Testing and Certification Program Manual (Manual)*, to transfer the testing for ES&S Unity 5.0 project from iBeta Quality Assurance (iBeta) to Wyle Laboratories (Wyle).

Section 4.3.1.2 of the *Manual* states:

“Selection of Accredited Laboratory. Selection and identification of the VSTL that will perform voting system testing and other prescribed laboratory action consistent with the requirements of this Manual. Once selected, a Manufacturer may NOT replace the selected VSTL without the express written consent of the Program Director. Such permission will be granted solely at the discretion of the Program Director and only upon demonstration of good cause.”

After carefully considering the facts noted in your initial request, the response from iBeta dated August 2, 2010, (attached) and your clarification letter dated August 9, 2010 (also attached), I have determined that the request should be granted given the facts presented, and the potential impact to election jurisdictions of not granting the request.

Your request notes that ES&S currently has multiple systems or versions of systems in testing at iBeta and that the volume of work produced by these systems, in conjunction with the workload related to ongoing engineering change order (ECO) assessments, environmental testing (other non-ES&S Federal certification efforts), state certification test support and special projects strains the capacity of iBeta to put equal emphasis on each ES&S project. While the EAC understands and agrees with iBeta's statements that lack of progress related to Unity 5.0 also stems from business decisions and later than expected deliverables from

ES&S, your ultimate contention that iBeta's process and procedures are constrained by the limitations of dependence upon one or two key individuals is undeniable.

Please note that once Unity 5.0 is moved to Wyle, the EAC will not consider any additional requests to change the lead VSTL for the remainder of this project. In addition, please note that the determination of the reuse of any testing previously conducted at iBeta will be made by EAC after review and recommendation by Wyle Laboratories.

Please feel free to contact me if you have any additional questions.

Sincerely,

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

Brian J. Hancock
Director, Testing and Certification