DATA RECOGNITION
DRC
CORPORATION

May 6, 2014

Dr. Valorie Foy
Director of Statewide Assessment
Nebraska Department of Education
301 Centennial Mall South
Lincoln, NE 68509

Dear Dr. Foy:

Data Recognition Corporation (DRC) welcomes the opportunity to provide specific information regarding the steps we will be taking to ensure a smooth and stable 2014-2015 assessment year in Nebraska.

DRC's Software Quality Assurance (SQA) team plans to perform a variety of standard testing plans prior to releasing the 2014-2015 DRC INSIGHT system for NeSA and Check4Learning. These steps will ensure that all of the DRC INSIGHT components are operational, working, and ready for school district use by September 1, 2014. The steps include, but are not limited to, the following:

- **System testing**—verify that all systems function against requirements, stated and implied.
- **Performance and load testing**—verify that systems will handle projected loads.
    - Performance tests are based on the anticipated number of students who will test concurrently for a given assessment.
    - DRC repeatedly runs performance tests at three times the expected rate to demonstrate our system will perform well above the required capacity without error.
- **Security testing**—verify that the system meets all security requirements.
- **Platform testing**—verify that the system performs consistently across all supported computer platforms and browsers.
- **End-to-end integration testing**—ensure the proper interoperability of all DRC enterprise systems.
- **Large-scale simulations**—a cross-functional team of 40-50 DRC employees will perform exploratory tests on all enhancements to the online test client software to ensure usability and reliability across a wide range of usage scenarios.
- **Final production form reviews**—conduct a final review of all production forms prior to use by students.
- **Production quality control**—ensure that all production data and deliverables meet all requirements, both stated and implied.

Our Software Quality Assurance team has developed over 500 formal test cases for DRC INSIGHT. These test cases will be included in our regular regression testing, including the final regression testing that will take place prior to the release of any software to production for Nebraska.

We have reevaluated the above processes, adding steps and extra test cases that will enhance the plan for Nebraska.

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COMPONENT SUMMARY for 2014-2015 NeSA-Writing, Reading, Math, Science, Mathematics, and Check4Learning

DRC INSIGHT

We are committed to the performance of both the Web-Based Test Engine (WBTE) and the Secure Browser (SB). There are no major changes planned to either before September 2014. Unlike the previous testing season, which was challenging because of the shift from Java to a web-based system, the coming year should be marked by stability. Small enhancements to the engine may be made in early August. If so, we will inform you of these updates in advance.

DRC would like to offer, at no additional cost, a full-time technical support resource to be based in Nebraska. This person will be available to provide year-round technical assistance for districts and schools across the state. This new position will supplement the Minnesota-based technical teams that support Nebraska.

DRC understands that the Department desires more "real-time" reporting of technology updates/incidents. We will continue to enhance the communication processes used during the testing windows.

Testing Site Manager (TSM)

DRC strongly recommends that the most recent version of the TSM be installed across all sites before August 15, 2014. In doing so, districts should be confident in the functionality of the TSM.

The TSM is designed to fulfill multiple roles in the process of preparing for and conducting online testing. TSM testing covers all areas of functionality and will be conducted on all supported operating systems, including Windows, Mac, and Linux. The testing team executes the following steps focused on the TSM functionality:

- The user interface
- Integration with the secure browser
- Readiness checks
- Content download including form content, Text-To-Speech
- Response caching
- Response transmission to the DRC servers
- Load Simulations
- Ping Trends
- Installation and configuration
- The uninstall process
- System updates

Text-to-Speech (TTS)

TTS functionality testing focuses on the functionality in the test engine, as well as the TSM's ability to serve the necessary audio content to the test engine. Multiple reviews of the test content and associated audio files are also conducted by the Test Development group. When testing TTS for a client, the SQA testing team executes the following steps focused on the TTS functionality:

- TTS content update on multiple TSMs
- Test ticket creation in the system for students indicating a need for online audio accommodations
- Audio controls (stop, starting points, play/pause) present and functional on all necessary pages
- Audio options (volume, speed, follow along) on all pages

- All pages read automatically by TTS
- All Stop/Pause/Play scenarios and associated audio restart/resume
- Tool Tips
- Item page, including response options
- Response selection audio
- Multi-page passage-specific functionality
- Multi-page item-specific functionality
- Pop-up windows, including Help and References
- Starting Points, including activation, navigation, and selection
- Follow along, including activation and passage scrolling

NeSA-Writing Field Test

DRC is prepared for a fully operational NeSA-Writing Field Test in November. The tabbing issue that resulted in lost work for some students in January and February 2014 has been addressed with changes in the WBTE code. A process change to the database was implemented to prevent the type of system outage that occurred on January 23, 2014.

We have enhanced our quality control process with the addition of a team of qualified writing assessment professionals that will partner with our technology staff. Together, this group will check the functionality of the writing system, including formatting of responses, at least one month prior to the NeSA-Writing Field Test window.

DRC assures that all components will be available September 1, 2014 in the environment in which actual testing will occur. (This date relates to the item types included in the current contract. If the option of technology-enhanced item types is added, additional time may be needed to incorporate the new item types.)

- Online Tools Training (OTTs) – all subjects and grade levels
- Practice Tests – all subjects and grade levels, including NeSA-Writing Practice Tests
- Guided Practice Tests – all subjects and grade levels
- Online Tools Training – Spanish, all subjects and grade levels
- Practice Tests – Spanish, all subjects and grade levels
- Text-to-Speech operational
- Testing Site Manager operational
- Check4Learning – all components operational
- Fully operational NeSA-Writing Field Test – available starting the second week of November through the third week of December (including the elimination of formatting errors)

These deliverables are all currently available, but will also be fully regression-tested prior to September 1, 2014.

While DRC has committed to the use of Chromebooks, iPads that support iOS 6 or higher, and Windows 8.1 tablets (non-touch) for the NeSA-Reading, Math, Science testing in Spring 2015, we would welcome additional conversations with NDE to plan a pilot of technology devices to assure a smooth implementation to new devices, to possibly plan for their use earlier in the school year, and to facilitate their use for Check4Learning.

DRC will be focusing our software development and testing on consistent, reliable integration of all online testing functionality, with a particular emphasis on stability. Our feature development teams include business analysts, software developers, and software testers, working in close cooperation on the end-to-end development of their features. Once released to pre-production, all features will be rigorously retested along with existing DRC

INSIGHT functionality to ensure that new features do not negatively impact any functionality of the existing system.

We would like to offer Nebraska the opportunity to participate in user acceptance testing of DRC INSIGHT prior to the release of software and tests to Nebraska's schools and districts. This user acceptance testing would allow NDE an early look at final production release components, and could be conducted in a variety of ways to meet NDE's needs—more or less formal, more or less extensive, etc. We look forward to discussing this possibility with you further.

DRC understands that the Department will be forming an Assessment Advisory Group that will include representatives from districts and schools across Nebraska. We look forward to conversations with the Department about how we can support this effort.

DRC's Chief Quality Officer, Ms. Lisa Peterson-Nelson, will provide executive-level leadership and management of the Nebraska quality process for 2014-2015. Ms. Peterson-Nelson will marshal all of DRC's corporate resources toward this effort and will regularly monitor and audit progress and results.

DRC is committed to delivering our products and services to the Nebraska Department of Education with the highest quality. We value our partnership with the state and look forward to any additional feedback you have to share with us after reviewing these steps.

Sincerely,

Doug Russell
Senior Vice President, Education Program Management

Lisa Peterson-Nelson
Chief Quality Officer

cc: Susan Engeleiter
Chief Executive Officer and President

Assessment and Accountability
Nebraska Department of Education
District Assessment Coordinator Assessment Step-by-Step

Questions? Contact us anytime!
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Done	Month	Action
❑	July	You will receive RMS test results -- Review for correctness, notify NDE of any corrections/questions
❑		C4L opens – arrange for student information to be uploaded and use to test viability of your access to testing system
❑	August	Preliminary release of NeSA assessment results-will be available to districts one week prior to public release – review again. Work with administration on message to public
❑		ISR's are delivered to your district - make a plan to distribute one copy to parents, one for school records after the public release of NeSA results
❑	September	All NeSA Practice and Tools for testing available– arrange computer access for classes and make a plan
❑		Contact your SPED & ELL teachers – determine anticipated number of paper tests needed – alternate (SPED), Spanish (ELL), or regular paper tests (SPED- IEP or 504)
❑		Make a plan for scheduling NeSA testing- by building, for district. Include computer availability considerations
❑	October	Order quantity of paper tests online – Enrollments (remember out-of-district placement students)
❑	November	Review/update your student list in NSSRS so that upload for NeSA Writing is up-to-date. Make sure all alternate students are correctly flagged on the SPED student template. Upload to occur by Dec. 1
❑	December	Computer lab/access planning for NeSA-Writing in grades 8 and 11
❑		For students in out-of-school placements, make arrangements with the facility for their testing
❑	January	Paper writing tests delivered to schools, make plan for distribution as appropriate
❑		Print 8th & 11th grade writing tickets, make plan for distribution on test day
❑		Train test administrators, make a plan for absences, make a schedule for testing
❑		Check your test sessions student list, add any students in eDirect who have enrolled since Dec. 1, or code reason not tested
❑		BEGIN TESTING as early in the window as possible
❑		Review/update student list in NSSRS once again so that student upload for RMS is correct. Make sure all alternate students are correctly flagged in the SPED student template for an alternate test. Upload to occur by January 30

❑	February	Check that all students have been tested for NeSA-W in eDirect / Reports /--and code those not tested
❑		Box paper/pencil tests and secure material and return to DRC (4th grade and any 8th and 11th paper)
❑		Make a plan for computer lab/access for NeSA-Reading, Math, Science testing and schedule
❑	March	Receive paper materials from DRC – check and distribute as appropriate
❑		First week eDirect is open, arrange for any audio tests, Spanish—and check alternates
❑		Check your test session student list again, make sure every student is included in the test sessions including those who have enrolled since February 1. If students have left district, code them No Longer Enrolled (NLE)
❑		If you have students in out-of-school placements, make arrangements with the facility for their testing.
❑		Train test administrators, make a plan for absences. Check scheduling of testing.
❑		Print tickets, make plan for distribution on test day
❑		BEGIN TESTING as early in the window as possible
❑		Monitor testing in eDirect / Reports. Update information as needed
❑	April	NeSA-Writing score results are shared with districts in eDIRECT, check for accuracy, notify NDE of any discrepancies, visit with teachers regarding any score verifications you may submit. and prepare score verifications
❑		Monitor testing in eDirect / Reports. Update information as needed
❑	May	Before testing ends – check the eDirect / Reports / … to verify all students have been tested and enter not tested codes
❑		Box any paper/pencil and secure materials and return to DRC
❑		School year ends – relax a little – it's on the list – do it!
❑	July	NeSA-Reading, Math, Science score results are shared with districts in eDIRECT – check for discrepancies and report any to NDE
❑		NeSA scores posted in portal. Check reports for accuracy and report any corrections to NDE. Corrections must be made during window to be included on State of the Schools Report
❑	August	Repeat

If at any time, you think something should be changed or added to this list in the future, please email suggestions. Thanks.