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DIRECTIVE 2011-19

June 29, 2011

To: ALL COUNTY BOARDS OF ELECTIONS USING THE ASSURE 1.0 VOTING SYSTEM

Re: Required Upgrade to Assure 1.2

SUMMARY

The purpose of this Directive is to advise each county using the Assure 1.0 voting system that it is required to upgrade to the Assure 1.2 voting system. The upgrade must be completed before the 2011 General Election unless a county is eligible to receive a waiver as outlined below.

Additionally, each Assure county must acquire its own keycard tool writing capability prior to the 2012 Presidential Primary Election.

I. BACKGROUND

The Premier Assure 1.0 voting system was certified for use in Ohio elections in 2005. It has been used in 47 Ohio counties.

To ensure the continued accuracy of Ohio elections, to solve known issues that have arisen with the Assure 1.0 system, and to prevent future issues from surfacing, it is imperative that all Assure counties upgrade to Assure 1.2.

The Assure 1.2 voting system has been federally tested and certified by the U.S. Election Assistance Commission ("EAC"). The system is more secure and provides enhanced functionality and usability both for voters and election administrators. Approximately 27 Ohio counties have upgraded (or are scheduled to upgrade) to Assure 1.2, while 20 counties remain on Assure 1.0 with no upgrade scheduled.

II. DISADVANTAGES INHERENT IN ASSURE 1.0

Assure 1.2 is a firmware update that solves disadvantages inherent in Assure 1.0 including:

Digital Guardian

The Assure 1.0 system requires the use of Digital Guardian. In 2005, the Secretary of State required the installation of Digital Guardian on all GEMS servers as a prerequisite for the use of Assure 1.0 to maintain and protect the security of the Assure voting system. The Digital Guardian program cannot be reconfigured to run on newer servers with newer operating systems (it requires use of an operating system no longer supported by Microsoft). Consequently, Assure

1.0 counties have encountered issues when attempting to replace a server that has reached its end of life with a new server.

The Assure 1.2 voting system does not require the use of Digital Guardian, because Assure 1.2 contains the safeguards, access detection, hashing, and cryptographic technology that meets or exceeds the security protections found in the Digital Guardian software, thereby eliminating the need for the Digital Guardian software on the Assure 1.2 system.

Sharing Violation Errors

Some counties have experienced a sharing violation error when uploading votes onto the GEMS server from multiple memory cards. A sharing violation error that occurs with Assure 1.0 system can be detected and prevented, but the risk of a sharing violation error cannot be eliminated.

The risk of a sharing violation error may be eliminated only by upgrading to Assure 1.2.

SSL and Root Certificates

The Assure 1.0 system contains two Secure Socket Layer certificates ("SSL certificates"). The client SSL certificate for the Assure 1.0 system expires in 2013. The root SSL certificate expires in January 2014. If the SSL certificates are not updated by the time of expiration, the Assure 1.0 system will be unusable.

In order to update the root certificate, a county using Assure 1.0 would need to open each unit of its voting system and install an updated certificate before the current certificate expires. At the very least, this means that each voting unit used for uploading and downloading data would need to have the software updated to include the new certificates. At most, it could mean that every piece of Assure voting equipment in the county would need to be updated with new certificates.

Neither the SSL certificate nor the root certificate for Assure 1.2 expires until 2030.

Calibration

At least one Ohio county has experienced difficulty detecting and resolving calibration issues with the Assure 1.0 system. Calibration issues are able to be detected faster and easier with Assure 1.2 because of the improved calibration testing that has been completed on the system.

III. BENEFITS OF ASSURE 1.2

In addition to solving some known issues with the older Assure systems, Assure 1.2 offers many benefits to counties. Below are two highlights of Assure 1.2.

Digital Signatures

The Assure 1.2 system uses digital signatures, improving the overall security of the system. A digital signature is an encrypted signature that is both generated and verified by the system. It is difficult to forge a digital signature and attempts of forgery are easily detected and thwarted by the system. Digital signature technology improves the security of the voting system.

Encoders

With Assure 1.2, encoders are programmed with a Central Administration Card instead of Supervisor Card preventing a precinct elections official from inadvertently deprogramming a card.

IV. KEYCARD TOOL

Because of the security features of Assure 1.2, it is no longer necessary for the state to play a role in programming key cards for the TSX DRE voting machine. In time for the use in the 2012 Presidential Primary Election, each board of elections that uses an Assure voting system must make arrangements for the programming of its own key cards either by acquiring in house keycard tool writing capability or by executing a Service Level Agreement with another county board of elections that has that capability (pending legislative authorization for such agreements). To ensure that the highest level of security for the election process is achieved, security encryptions on access cards should be changed prior to each primary and general election. However, boards of elections may choose to change security encryptions before every election, including special elections.

V. WAIVER

Each county that is currently using the Assure 1.0 voting system is required to upgrade to Assure 1.2 before the 2011 General Election.

A waiver of this requirement is available only if a county demonstrates that it is unable to complete the upgrade prior to the 2011 General Election due to current fiscal year budgetary restrictions or if the county has, prior to the issuance of this Directive, scheduled the upgrade for after the 2011 General Election but before the 2012 Presidential Primary Election. To request this waiver, a county must submit a written request (an email or letter sent via fax) to the Director of Elections, c/o Pat Wolfe at pwolfe@ohiosecretaryofstate.gov. The request must: 1) outline, in detail, the budgetary restrictions and/or financial hardship preventing the county from upgrading before the 2011 General Election or a statement that the county has, prior to the issuance of this Directive, scheduled the upgrade for after the 2011 General Election but before the 2012 Presidential Primary Election, and 2) provide the date by which the county plans to complete the upgrade.

A county that receives a waiver will be required to upgrade to Assure 1.2 before the 2012 Presidential Primary Election. No additional waivers or extensions will be granted.

VI. PREMIER SETTLEMENT

Please note that, if your county participated in the Premier Settlement Agreement, it may be eligible to benefit from provisions of that agreement.

If your county selected Option D of the Premier Settlement Agreement, it may convert software on its existing Assure system to Assure 1.2 through January 31, 2013. Your county should have received a one-time cash payment to assist with this conversion or to use for any other purpose. The cost of the hardware/firmware chips necessary to upgrade the county's existing optical scanners to Assure 1.2 may be waived.

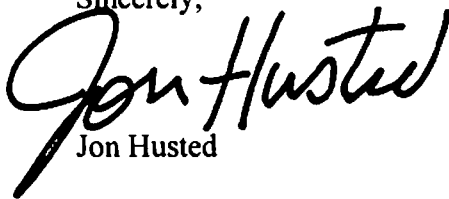
If your county selected Option E of the Premier Settlement Agreement, it may be entitled to a reduction on license fees for Assure 1.2 for the period between January 1, 2011 and January 31, 2013. Whether and to what extent the county is entitled to this discount will depend on when your county converts to Assure 1.2.

If your county selected Option F of the Premier Settlement Agreement, it may purchase OSX optical scanners, TSX units, and/or PhotoScribe PS960 High Speed Scanners at a discounted price through July 31, 2011. It also may purchase these items at the price listed in the settlement agreement (with no discount) from July 31, 2011 through January 31, 2013. For a list of prices, please see the Settlement Agreement (attached).

As with all contract issues, your county should work with its legal counsel, the county prosecuting attorney, to determine whether – and to what extent – it may benefit from the Premier Settlement Agreement and the best time to upgrade to Assure 1.2.

If you have any questions about this Directive, please contact your county's assigned elections counsel at (614) 466-2585.

Sincerely,

A handwritten signature in black ink that reads "Jon Husted". The signature is stylized with a large, sweeping "J" and "H".

Jon Husted