August 12, 2019

Mr. Brian Newby, Executive Director
United States Election Assistance Commission (EAC)
1335 East-West Highway, Suite 4300
Silver Spring, Maryland 20910

Dear Mr. Newby:

Enclosed please find an updated program narrative and budget for Agreement No. OH18101001. The documents explain how Ohio intends to expend the appropriated resources by December 31, 2020 to improve the administration of federal elections in the state. This plan supplements the work currently underway in response to Secretary LaRose’s Security Directive 2019-08\(^1\). The Directive sets forth a comprehensive, multifaceted security strategy partnering with Ohio’s local boards of elections to provide the redundancy required for a strong election system infrastructure. These funds will support the county boards of elections in accomplishing this important goal. Please let me know if you have any additional questions or comments.

Yours in service,

Frank LaRose
Ohio Secretary of State

\(^1\) https://www.sos.state.oh.us/globalassets/elections/directives/2019/dir2019-08.pdf
HAVA Grant Funds Updated Program Narrative

As a part of its Consolidated Appropriations Act of 2018,\(^1\) congress appropriated additional funds to states to be used to “improve the administration of federal elections for federal office, including enhancing election technology and making election security improvements.” Ohio’s share of the appropriated funds is $12,186,021. As a part of the federal statutory requirement, the state must provide a $609,301 match by March 23, 2020.

Ohio Secretary of State Frank LaRose submits the following updated plan for how Ohio intends to expend the appropriated resources to improve the administration of federal elections in the state by December 31, 2020. This plan supplements the work currently underway in response to Secretary LaRose’s Security Directive 2019-08\(^2\), which requires county boards of elections to make high security upgrades a priority. The Directive sets forth a comprehensive, multi-faceted security strategy with Ohio’s local boards of elections to provide the redundancy required of a strong election system infrastructure.

Pathfinders

This priority reserves up to $545,147.78 in grants to Ohio’s 88 county boards of elections to contract for “Pathfinders” to assist in conducting an Elections Infrastructure Security Assessment (EISA) as outlined by the Center for Internet Security. The Pathfinders also helped in developing a plan for mitigating vulnerabilities identified in the assessments.

Security Block Grants

All 88 county boards of elections will be awarded a block grant of $50,000 to assist with implementation of mitigation efforts for the vulnerabilities identified in the EISA and required by Secretary LaRose’s Security Directive. Each board of elections is required to address and implement all high priority items contained in the EISA no later than January

31, 2020. Additionally, each county board of elections is required to join the Election Infrastructure Information Sharing and Analysis Center (El-ISAC), engage the U.S. Department of Homeland Security (DHS) for free resources including a phishing campaign assessment, vulnerability scanning, risk and vulnerability assessment, remote penetration testing, validated architectural design review, cyber threat hunt, and a physical security assessment. The Secretary of State’s Office will provide support to the county boards of elections throughout the implementation of the EISA high priority items and monitor compliance. This initiative is estimated to cost up to $4,800,000.

Albert Monitors

The Secretary of State’s Office will provide Albert intrusion detection devices and monitoring services to all county boards of elections who do not currently have an Albert intrusion detection device or a substantially similar device through December 31, 2020. Additionally, the Secretary of State’s Office will provide Albert intrusion detection devices and monitoring services to the voting system, e-pollbook, voter registration system, and remote marking ballot device vendors that serve critical Ohio systems through December 31, 2020. This initiative is estimated to cost up to $2,396,122.

Security Information and Event Management (SIEM)

A Security Information and Event Management (SIEM) system will be implemented at the Secretary of State’s Office along with monitoring support services. Additionally, the Secretary of State will provide SIEM and security monitoring services supporting the SIEM to all 88 county boards of elections who do not currently have a SIEM through December 31, 2020. This initiative is estimated to cost up to $2,618,710.

Cybersecurity Training

Each board of elections is required to train its staff annually on tactics to proactively defend against cyber-attacks. Each board is required to use a program covering topics including, but not limited to, how to detect a phishing email, the importance of using strong passwords, and general cybersecurity awareness. The Secretary of State’s Office will procure a training program for county board of elections that do not currently offer training through December 31, 2020. This training is estimated to cost up to $10,000.
Secure USB Drives

For election night reporting, all boards of elections must use Secretary of State provided and approved USB Devices when transferring results data to secure tabulation machines. When these devices are plugged into the Secretary of State provided workstation, the USB write blocker device provided by the Secretary of State must also be utilized. A write-blocker must also be used to ensure that no malicious transfer occurs when copying data from the USB device. Upon successful transmission, a tamper evident seal must be placed over the USB port of the USB device, and stored in a secure location.

For general office use at the board of election, all USB storage devices must be FIPS 140-2 compliant with authentication and encryption. This initiative is estimated to cost up to $190,000.

Network Upgrades

The Secretary of State will be upgrading the internal network to implement security controls such as network segmentation. This cost will include upgraded switches and firewalls that can provide fine grained access control and segmentation. We will also be implementing device whitelisting inside of the network to ensure that only pre-authorized devices can be connected to the network. This initiative is estimated to cost up to $200,000.

Secure Laptops

The Secretary of State will be upgrading our fleet of laptops to support more enhanced security features provided by the Trust Platform Module (TPM) chip and Windows 10 Enterprise. The existing desktops that are being replaced will be distributed to the counties who require computer upgrades that will serve as secure workstations with the ability to access the state wide voter registration database (SWVRD) and election night reporting systems. These new laptops will also allow the office to implement application whitelisting, encryption, and Windows 10 AppLocker features to further secure the remote workers. This initiative is estimated to cost up to $82,195.
Statewide Voter Registration System Database (SWVRD)

Ohio’s SWVRD is a “bottom-up” system. Each county selects its own county voter registration system (CVRS) that communicates with a centralized, real-time statewide database. Several security improvements and technology enhancements are planned for the SWVRD, CVRS, communications network, and other elections-related information technology systems hosted by the Secretary of State’s Office (e.g., election night reporting systems). Anticipated enhancements include the introduction of multi-factor authentication, increased hardening of communications lines, enhanced encryption techniques, replacement of personal computing hardware and related operating systems, and long-term planning for the future security and functionality of the SWVRD. Additionally, the Secretary of State’s database will implement anomaly detection at an estimated cost of $500,000. In all, service providers for the SWVRD and CVRS, hardware and software purchases, and consultants for this multi-faceted initiative are expected to cost as much as $1,685,459.

Enhanced Cybersecurity Service (ECS)

ECS utilizes classified information sourced by U.S. government intelligence organizations to detect and prevent malicious Simple Mail Transfer Protocol (SMTP) and Domain Name Service (DNS) traffic. This plan sets aside up to $100,000 to provide ECS for email accounts through 2020.

Table-top Exercises (TTX) & Training

This initiative allocates up to $48,584.49 for the Secretary of State to host regional table-top exercises (TTX’s) for local elections officials in 2018, modeled after the elections-specific TTX recently run by the Kennedy School of Government’s Belfer Center for Science and International Affairs at Harvard University. Funding for this initiative will also support travel and attendance costs for cybersecurity experts to serve as speakers at the regional elections conferences within Ohio and support online and other cybersecurity courses, including phishing awareness training for state and local election officials.
Email Support Pilot Project

Funding in the amount of up to $119,103.73 within this initiative provides the Secretary of State with the additional resources to support County boards of elections without email support. This pilot program will enable county boards of elections to rely on the Secretary of State’s IT department and its Outlook 365 enterprise agreement for its email service and support.

Contingencies

In the event that the funding allocation for the priorities listed above is greater than the actual costs associated with achieving the intended outcome, that other funding sources are identified for a priority, or that the priority falls in relative importance, the Secretary of State’s office has identified the following contingent priorities:

1. Continued Implementation of Elections Infrastructure Security High and Medium Priority Items: This contingent initiative would continue the work at the Secretary of State’s office and the county boards of elections at implementing the high and medium election infrastructure security items as well as implement other requirements in Security Directive 2019-08 to improve the administration of federal elections for federal office, including enhancing election technology and making election security improvements.

2. Content Management Systems & Cloud Hosting Support: This contingent initiative would provide funding to assist counties or their managed service providers in replacing open source website content management systems (e.g., WordPress) with systems that are secured more robustly against common defacing attacks and other cyberattacks. Funding would also be available to assist counties with moving their online functions (e.g., dynamic election night reporting) to secure government clouds during high traffic time periods to mitigate risks of distributed denial of service (DDoS) and other cybersecurity threats.
3. Enhanced Cybersecurity Services for Counties: This contingent initiative would provide funding to extend ECS to county election officials outside of the Secretary of State’s email system.

4. Voter Registration Security Enhancements: This contingent initiative would provide funding to assist counties or their service providers with security upgrades with their voter registration systems.
## 2018 HAVA ELECTION SECURITY GRANT

### Budget Information

- **Name of Organization:** Ohio Secretary of State
- **Budget Period Start:** 3/23/2018
- **Budget Period End:** 12/31/2020

### SECTION A - BUDGET SUMMARY

**FEDERAL & NON-FEDERAL FUNDS (Match)**

*(Consolidated Budget for total project term—up to 5 years as defined by grantee)*

<table>
<thead>
<tr>
<th>PROGRAM CATEGORIES</th>
<th>(a) Voting Equipment</th>
<th>(b) Election Auditing</th>
<th>(c) Voter Registration Systems</th>
<th>(d) Cyber Security</th>
<th>(e) Communications</th>
<th>(f) Other</th>
<th>(g) Other</th>
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**Proposed State Match:** 0.0%

A. Do you have an Indirect Cost Rate Agreement approved by the Federal government or some other non-federal entity? _No_

B. Period Covered by the Indirect Cost Rate Agreement (mm/dd/yyyy-mm/dd/yyyy):

C. Approving Federal agency:

D. If other than Federal agency, please specify:

E. The Indirect Cost Rate is: