PRO V&V	**ENGINEER CHANGE ORDER (ECO) ANALYSIS FORM**
Manufacturer:	Clear Ballot Group (CBG)
System:	ClearVote 1.5, 2.0, and 2.1 (ClearDesign, ClearAccess, and ClearCount components)
ECO Number:	SW-7679
ECO Description:	Microsoft Windows O/S patching

Overview:
This ECO documents the application of a software security patch implemented on the ClearVote 1.5, 2.0, and 2.1 systems. An Emergency Directive 20-02, released in Janurary 2020, identified a Windows vulnerability that necessitates a security patch on the ClearVote system (reference https://cyber.dhs.gov/ed/20-02/). In collaboration and cooperation with Microsoft, a patch has been developed to add two system files to the installation to remediate the vulnerabilities described in Emergency Directive 20-02, including the Elliptic Curve Cryptography (ECC) validation vulnerability in the Windows CryptoAPI assigned CVE-2020-0601. One of these files is the software security patch. The other file is a bespoke patch that allows for Windows updates to be applied on Windows 10 Pro 1607 versions and later, as Windows 10 Pro 1607 has gone end of service regarding Windows updates.

This change affects the following ClearVote systems:
EAC-certified systems: ClearVote 1.5 and ClearVote 2.0
State-level system: ClearVote 2.1

Supporting Documentation:
SW-7659 ED 20-02 Cover Letter (revised).pdf *(ECO Cover Leter)*
ECO Request Form V3 - SW-7679 (Windows Patch).pdf *(CBG ECO Request Form)*
Windows 10 ED-20-02 Security Patch 081320.pdf *(ClearVote Upgrade Notes)*
CBG ED 20-02 Patch Test Execution Report.xlsx *(CBG Internal Testing)*
kb4556940-vstl_patch_coc_guidelines.pdf *(Chain of Custody Confidentiality Guidelines – provided as part of the review package but not part of the formal submission package due to security concerns)*

Engineering Recommendation:
Technical documentation review performed and onsite functional regression/verification performed by Pro V&V to approve change. Functional regression testing consisted of executing/running one General and one Primary (System Integration) Election. No additional testing required.

Engineering Analysis: De Minimis – No additional testing required

Reviewer:	**Approver:**
Wendy Owens	Michael L. Walker
Printed Name	Printed Name
Wendy Owens	Michael L. Walker
Signature	Signature
08/25/2020	08/25/2020
Date	Date