PRO V&V	**ENGINEER CHANGE ORDER (ECO) ANALYSIS FORM**
Manufacturer:	Election Systems & Software (ES&S)
System:	EVS Windows 10 and Server 2016
ECO Number:	1062
ECO Description:	Applying Microsoft Windows 10 & Server 2016 patches to EMS systems

Overview:
This ECO documents the application of Microsoft Windows 10 & Server 2016 patches to EMS systems to mitigate the critical CryptoAPI spoofing vulnerability. This vulnerability affects all machines running 32- or 64-bit Windows 10 operating systems, including Windows Server versions 2016 and 2019. This vulnerability allows Elliptic Curve Cryptography (ECC) certificate validation to bypass the trust store, enabling unwanted or malicious software to masquerade as authentically signed by a trusted or trustworthy organization. This could deceive users or thwart malware detection methods such as antivirus. Additionally, a maliciously crafted certificate could be issued for a hostname that did not authorize it, and a browser that relies on Windows CryptoAPI would not issue a warning, allowing an attacker to decrypt, modify, or inject data on user connections without detection. Microsoft has not identified any workarounds for this vulnerability; therefore, patching the OS is required.

Affected Systems:
Federal: EVS 6.1.0.0
State: FL EVS 6.1.0.1

Supporting Documentation:
ECO 1062 Win10 Vulnerbilities.pdf *(ES&S ECO)*
ECO1062_Security Rollup_Jan2020_Install Instructions_Win10.pdf *(Installation Instructions)*
ECO1062_Security Rollup_Jan2020_Install Instructions_Server2016.pdf *(Installation Instructions)*
windows_10_patch_FAQ_01-22-20.pdf
ESSSYS_6'1'0'0_D_SysOvr.pdf *(updated TDP System Overview)*

Engineering Recommendation:
Technical documentation review performed and onsite functional regression/verification performed at ES&S facility 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

Reviewer:	**Approver:**
Wendy Owens Printed Name	Jack Cobb Printed Name
Wendy Owens Signature	Jack Cobb Signature
2/17/2020 Date	2-17-2020 Date