



# U.S. Election Assistance Commission

Voting System Testing and Certification Program

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## Notice of Clarification

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### NOC 19-01: Software De Minimis Changes

Issued by Program Director, November 15, 2019

### Section of Certification Manual to Be Clarified:

#### Testing & Certification Program (Cert) Manual, Version 2.0

- 3.4.2 De Minimis Change - Defined. A de minimis change is a change to a certified voting system's hardware, software, TDP, or data, the nature of which will not materially alter the system's reliability, functionality, capability, or operation. Under no circumstances shall a change be considered de minimis if it has reasonable and identifiable potential to impact the system's performance and compliance with the applicable voting Standard.
- 3.4.3 De Minimis Change – Procedure. Manufacturers who wish to implement a proposed de minimis change must submit it for VSTL review and endorsement and EAC approval. A proposed de minimis change may not be implemented as such until it has been approved in writing by the EAC.
- 3.4.3.1 VSTL Review. Manufacturers must submit any proposed de minimis change to a VSTL and the EAC for review and endorsement. The Manufacturer will provide the VSTL: (1) a detailed description of the change; (2) a description of the facts giving rise to or necessitating the change; (3) the basis for its determination that the change will not alter the system's reliability, functionality, or operation; (4) upon request of the VSTL, a sample voting system at issue or any relevant technical information needed to make the determination; (5) document any potential impact to election officials currently using the system and any required notifications to those officials; (6) a description of how this change will impact any relevant system documentation; and (7) any other information the EAC or VSTL needs to make a determination. The VSTL will review the proposed de minimis change and make an independent determination as to whether the change meets the definition of de minimis change or requires the voting system to undergo additional testing as a system modification. If the VSTL determines that a de minimis change is appropriate, it shall endorse the proposed change as a de minimis change. If the VSTL determines that modification testing and certification should be performed, it shall reclassify the proposed change as a modification. Endorsed de minimis changes shall be forwarded to the Voting System's Project Manager for final approval. Rejected changes shall be returned to the Manufacturer for resubmission as

system modifications.

3.4.3.2 VSTL Endorsed Changes. The VSTL shall forward to the EAC any change it has endorsed as de minimis. The VSTL shall forward its endorsement in a package that includes:

3.4.3.2.1 The manufacturer's initial description of the de minimis change, a narrative of facts giving rise to, or necessitating, the change, and the determination that the change will not alter the system's reliability, functionality, or operation.

3.4.3.2.2 The written determination of the VSTL's endorsement of the de minimis change. The endorsement document must explain why the VSTL, in its engineering judgment, determined that the proposed de minimis change met the definition in this section and otherwise does not require additional testing and certification.

3.4.3.3 EAC Action. The EAC will review all proposed de minimis changes endorsed by a VSTL. The EAC has sole authority to determine whether any VSTL endorsed change constitutes a de minimis change under this section. The EAC will inform the Manufacturer and VSTL of its determination in writing.

3.4.3.3.1 If the EAC approves the change as a de minimis change, it shall provide written notice to the Manufacturer and VSTL. The EAC will maintain copies of all approved de minimis changes and otherwise track such changes.

3.4.3.3.2 If the EAC determines that a proposed de minimis change cannot be approved, it will inform the VSTL and Manufacturer of its decision. The proposed change will be considered a modification and require testing and certification consistent with this Manual. De minimis changes cannot be made to voting systems currently undergoing testing; these changes are merely changes to an uncertified system and may require an Application update.

## **Purpose:**

The de minimis change process is used by the EAC to allow minor modifications to a certified voting system. In the past, this has been applied primarily to hardware changes as software changes often require a new version and build. Additionally, past practice has been that if a de minimis change required VSTL testing, it was classified as a system modification.

## **Clarification:**

The EAC has determined that allowing software de minimis changes is necessary to confront a rapidly evolving cybersecurity threat environment as well as allowing Manufacturers to quickly respond to changing jurisdictional requirements, where those requirements can be addressed with minor changes.

Software de minimis changes should have the following general characteristics:

1. Update a discrete component of the system and do not impact overall system functionality;
2. Do not modify the counting or tally logic of a component or the system (formatting changes to reports are allowable);
3. Do not affect the accuracy of the component or system;
4. Do not negatively impact the functionality, performance, accessibility, usability, safety, or security of a component or system;
5. Do not alter the overall configuration of the certified system (e.g. adding ballot marking device functionality to a previously certified DRE component);
6. Can be reviewed and/or tested by VSTL personnel in a short amount of time (approximately less than 100 hours).

## **Conclusion:**

As of the date of this Clarification, the EAC will consider software de minimis changes submitted in accordance with the Testing and Certification Program Manual, Version 2.0 with the following clarifications:

Section 3.4.3.2.2 will be interpreted as allowing minimal VSTL testing as deemed necessary to confirm the change (approximately less than 100 hours).

Section 3.4.3.2.3 will be **added**:

- 3.4.3.2.3 The validated hashes, trusted builds, and version listing for all software modules changed.