

## SLI Compliance Engineering Change Evaluation and Review Form

|                   |   |                   |                                      |
|-------------------|---|-------------------|--------------------------------------|
| <b>Vendor:</b>    | Hart InterCivic                                 | <b>Date:</b>      | 23-Mar-20                            |
| <b>Change ID:</b> | ECO-01390                                       | <b>System(s):</b> | Verity Voting 2.2, 2.2.1, 2.2.2, 2.4 |
| <b>Product:</b>   | Verity Relay COTS Modem Revision<br>MTD-MNA1-02 |                   |                                      |

| Change Summary Description   |
|--|
| <p><b>Summary:</b> The COTS 4G “Cellular Dongle” USB modem used in the Verity relay kit has been revised by the manufacturer, MultiTech. The metal shielding on the USB cable is now grounded (soldered) to the circuit board inside the modem enclosure to improve EMC performance. There are no changes to electronic components or drivers. The model number, MTD-MNA1, is being updated to add a “manufacturing flag” (suffix) of “-02”. MultiTech has also removed a passive clamp-on ferrite from the cable that was not needed with the properly grounded cable shield. This is a COTS revision only. No change to the Verity devices, neither hardware nor software, is required to support the revised modem.</p> <p><b>Reason for Change:</b> The COTS Cellular Dongle USB modem used in the Verity relay kit, the MTD-MNA1, has been revised by the manufacturer to improve EMC performance. The manufacturer, MultiTech, will add a “-02” suffix to the model number to account for this revision, and will manufacture all MTD-MNA1 modems with this revision going forward.</p> <p><b>ECO Category:</b> Revision</p> |

| Change Evaluation                   |  | Comments  |
|-------------------------------------|--|---|
| <input type="checkbox"/>            | The change affects the form, fit or function of the equipment and therefore requires hardware testing to be performed. The testing requirements are defined in the Hardware Test Matrix table below. Any changes made to a system under test will result in the manufacturer supplying a list and detailed description of all changes. |   |
| <input checked="" type="checkbox"/> | <b>De Minimis change order:</b> A de minimis change order is a change to a certified voting system’s hardware, software, Technical Data Package (TDP), or data, the nature of which will not materially alter the system’s reliability, functionality, capability, or operation.   | The requested changes do not affect the system’s reliability, functionality, capability, operation or software. |
| <input checked="" type="checkbox"/> | <b>System documentation:</b> The manufacturer has provided a description of how this change will impact any relevant system documentation and has provided the updated documentation, if applicable.   | Updated Approved Manufacturer List will not go into effect until after the EAC ruling.                          |
| <input type="checkbox"/>            | The change provides closure for an issue encountered during testing.   |   |
| <input type="checkbox"/>            | Requires Evaluation from a EMC/EMI Test Lab  |   |
| <input type="checkbox"/>            | Requires Evaluation from a NRTL Test Lab   | Safety Evaluation   |






**Summary Comments**

Hart’s ECO-01390 revised MTD-MNA1-2.0 modem has the identical regulatory compliance certification, FCC Class B, safety certification UL 60950-1, and environmental operating conditions as its predecessor the MTD-MNA1. No change to the Verity devices, neither hardware nor software, is required to support the revised modem.

SLI has assessed the hardware change in ECO 01390, including supporting documentation. The requested change does not affect the system’s reliability, functionality, capability, operation or software. SLI considers the nature of this change to be De Minimis and therefore not to affect the Verity Voting 2.2, 2.2.1, 2.2.2, and 2.4 Federal certification status. Hart’s QA regression testing was based on the evaluation and risk analysis of the modification to the modem on supported Verity systems. The testing that has been performed, including EMC testing, is adequate and no additional testing is required.

As required under section 3.4.3 of the EAC's Voting System Testing and Certification Program Manual Version 2.0, Hart InterCivic has provided the necessary information to verify the ECO 01390 change is De Minimis.

|   | <b>Approved by/Title</b>                   | <b>Signature:</b>  | <b>Date:</b> |
|---|--|--|--------------|
|  | Darrick Forester<br>Hardware Test Engineer |  | 23-Mar-20    |
|   | Traci Mapps<br>Director                    |  | 23-Mar-20    |

