

IoT Advisory Board

August 2023 Meeting

Draft – For Discussion Purposes

IoT AB Cybersecurity Subgroup

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Consumer
Technology
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August 2023 Subgroup Update

New Draft Recommendations

Recommendation 6: Guidance to Clarify IoT Sector Boundaries

The federal government should promote and support the development of an overarching guideline developed in a multi-stakeholder process that more clearly distinguishes the major sectors of the IoT for use when dealing with concerns such as cybersecurity.

Recommendation 7: Technical Guidance on IoT Vulnerabilities

The government should consider additional ways to highlight those vulnerabilities most likely to be applicable to IoT product developers.

Recommendation #6 (details)

Delineate IoT Sectors

Create guidance on and promote a distinction between IoT, IIoT and Process Sensors and to address the lack of cyber security and trust in legacy process sensors and IIoT devices among multiple stakeholders.

Justification

Two large sectors in IoT are Consumer IoT and Industrial IoT. Other connected device categories exist for automotive, medical, aviation, and more. Regulators and legislators would benefit from guidance to correctly identify where one sector ends and another begins, and where the overlaps are.

Recommendation #7 (details)

Highlight vulnerabilities most likely to be applicable to IoT product developers.

Provide guidance to IoT developers to help them efficiently comply with standards or best practices for addressing “critical vulnerabilities” or “known vulnerabilities”.

For example, by providing a list of known IoT operating system vulnerabilities that developers should be aware of and address, or a means to filter an existing list for such vulnerabilities.

Justification

An IoT developer is encouraged or required to make sure they address any “known vulnerabilities” or “critical vulnerabilities” as part of best practices. The FCC NPRM on the U.S. Cyber Trust Mark program mentions “identified security vulnerabilities” @58 and “critical patches” @40.

There is currently no resource that matches this “known” or “critical” criteria for IoT vulnerabilities.

NIST Maintains a National Vulnerability Database

<https://nvd.nist.gov>

(1,173 entries for keyword “IoT” !)

The screenshot shows the NIST National Vulnerability Database (NVD) homepage. The browser address bar displays nvd.nist.gov. The page features the NIST logo and the text "Information Technology Laboratory" and "NATIONAL VULNERABILITY DATABASE". A navigation menu is visible in the top right corner. The main content area includes a "NOTICE" section with the following text: "Keyword and keyword exact match searches have been re-enabled. Clarifications on how keyword search operates can be found in the documentation for keyword parameters. For questions and concerns you can contact nvd@nist.gov." Below the notice are three featured sections: "New 2.0 APIs" (represented by a clipboard icon with binary code), "2022-23 Change Timeline" (represented by a circular arrow icon), and "New Parameters" (represented by a monitor icon with the text "KNOWN EXPLOITED VULNERABILITIES"). A sidebar on the left contains a list of navigation options: General (+), Vulnerabilities (-), Search & Statistics, Full Listing, Weakness Types, Legacy Data Feeds, Vendor Comments, CVMAP, Vulnerability Metrics (+), Products (+), Developers (+), and Contact NVD (+). At the bottom of the page, a paragraph states: "The NVD is the U.S. government repository of standards based vulnerability management data represented using the Security Content Automation Protocol (SCAP). This data enables automation of vulnerability management, security measurement, and compliance. The NVD..."

CISA Maintains a Known Exploited Vulnerabilities Catalog

<https://nvd.nist.gov>

(1 entry for keyword
“IoT” !)

Known Exploited Vulnerabilities Catalog

Download CSV version

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Back to previous page for background on known exploited vulnerabilities

Show 10 entries

Search: IoT

| CVE | Vendor/Project | Product | Vulnerability | Date Added to | Short | Action | Due | Notes |
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Discussion