CISA CYBERSECURITY ADVISORY COMMITTEE
DECEMBER 5, 2023 MEETING SUMMARY

OPEN SESSION

Call to Order and Opening Remarks

The Cybersecurity and Infrastructure Security Agency (CISA) Cybersecurity Advisory Committee (CSAC) Designated Federal Officer, Ms. Megan Tsuyi, CISA, welcomed attendees to the CSAC December Quarterly Meeting. While members of the public had the opportunity to provide public comments during the meeting, the Committee did not receive any requests to provide public comment. The Committee will accept comments at any time via the CSAC mailbox at CISA_cybersecurityadvisorycommittee@cisa.dhs.gov.

The CSAC Chair, Mr. Ron Green, Mastercard, reflected on the Committee's work over the past two years and acknowledged the work of the Committee's previous chair, Mr. Tom Fanning. Mr. Green and Mr. Dave DeWalt, CSAC Vice Chair, NightDragon, thanked the CSAC members and CISA partners for their work to date.

The Honorable Jen Easterly, CISA, thanked attendees and Mr. Fanning for his previous work. She thanked Alex Tosheff, VMware, for helping to coordinate the meeting venue, in addition to Viasat staff. Director Easterly underscored the importance of government and private sector partnerships in the wake of attacks on critical infrastructure in recent news.

Subcommittee Updates, Deliberation, and Vote

Director Easterly noted that CISA continues to review the Committee's recommendations from the CSAC September Quarterly Meeting.

Technical Advisory Council

Mr. Jeff Moss, DEF CON Communications, reviewed the subcommittee's actions to date to close out the memory safety tasking. Given the increased national and international attention on memory safety, CISA is best positioned to take action. He reviewed the current landscape where 70% of today's vulnerabilities reported to Microsoft and Google are due to memory safety. While most applications today are written in memory safe code, he cautioned that the operating systems on which they run are not, leading to security risks. He reviewed the two broad categories when considering the memory safety of a program to include spatial and temporal memory safety and the various strategies developers employ to protect against attacks on the two categories. He further categorized memory safety issues and highlighted the root causes of memory safety and common vulnerabilities and exposures. Mr. Moss commented that memory protections can be categorized as either probabilistic or deterministic, and continued to review differences between systems languages and non-systems language to develop a robust picture of today's security environment.

Mr. Moss detailed potential solutions to include cost considerations, when and where to implement memory safety protections, decisions to integrate memory safety into the development process as incremental or complete rewrites of code, and costs and deployability. He stressed that memory safe hardware and language options now exist where they may not have in the past. There is now a path to address existing legacy needs while simultaneously developing new components in safer languages.

Mr. Moss provided a comprehensive overview of the subcommittee's findings and draft recommendations for full Committee deliberation and vote. Mr. Bob Lord, CISA, commended Mr. Moss on the thoroughness of the group's

investigation and referenced CISA's upcoming product *The Case for Memory Safe Roadmaps*.[1]

Mr. Green motioned that the Committee approve the recommendations. Committee members seconded and passed the motion.

Building Resilience and Reducing Systemic Risk to Critical Infrastructure

Ms. Lori Beer, JPMorgan Chase, thanked the former CSAC Chair, Mr. Tom Fanning, Southern Company, for his leadership, which envisioned a new national security paradigm to recognize the central role of public-private partnerships. The subcommittee's findings and draft recommendations for full Committee deliberation and vote focused on strengthening the elements, standards, and best practices of operational collaboration. The findings included a maturity model to enable sectors and organizations to develop capabilities from scratch, while also enhancing current practices. Using this model, CISA can sustain and support critical infrastructure sectors, including entities that are target-rich and cyber-poor.

Director Easterly underscored CISA's dual roles as the nation's cyber defense agency and as the National Coordinator, as enabled in legislation, such as the *National Defense Authorization Act of 2021.* She commented on the importance of an architecture nested in a larger framework of partnerships to manage cross-sector risk and to plug into CISA's Joint Cyber Defense Collaborative (JCDC) work to connect the critical infrastructure and cybersecurity ecosystems. Mr. Eric Goldstein, CISA, affirmed that the subcommittee's findings will help advance the JCDC into the next stage of maturation.

Mr. Green motioned that the Committee approve the recommendations. Committee members seconded and passed the motion.

CISA and CSAC Strategic Focus 2024

Director Easterly identified a strategic focus of 2024 as focusing on China and resilience efforts for critical infrastructure owners and operators.

Director Easterly reviewed the key focus areas for the CSAC for 2024 to include: (1) Transforming the Cyber Workforce. The subcommittee will be briefed by the Chief Human Capital Officer and Chief People Officer teams on their continued forward progress, building on over 1,500 new hires in the past two and a half years; (2) Technical Advisory Council. The subcommittee will focus on a new open source security tasking; (3) Turning the Corner on Cyber Hygiene. Led by Mr. George Stathakopoulos, Apple, the subcommittee will focus on catalyzing CISA's secure-by-design revolution and ensuring that the technology people rely on is safe, and work in connection to CISA's efforts on AI; (4) Corporate Cyber Responsibility. The subcommittee will remain active without any additional taskings; (5) Building Resilience and Reducing Systemic Risk to Critical Infrastructure. The subcommittee will remain active without any additional taskings; and (6) Strategic Communications. This subcommittee, led by Mr. DeWalt, will continue to aid CISA to effectively communicate with stakeholders across America.

Director Easterly expressed gratitude to all those who have contributed to the development of the agency and its commitment to ensuring the safety of technology.

CSAC Annual Report Overview

Mr. Green and Mr. DeWalt thanked Director Easterly and emphasized that CSAC is committed to assisting CISA meet its objectives.

Mr. Green highlighted the annual report requirement mandated in section 2216 of the *National Defense Authorization Act of 2021*. He noted that throughout 2023, CSAC convened during 4 quarterly meetings, held 87 subcommittee meetings, and presented 135 recommendations to CISA.

Closing Remarks

Director Easterly reviewed CISA's progress in reviewing and addressing CSAC recommendations. Director Easterly

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[1] https://www.cisa.gov/sites/default/files/2023-12/The-Case-for-Memory-Safe-Roadmaps-508c.pdf

thanked the meeting hosts and the Committee for the valuable work done in 2023 and conveyed her excitement for the work that will be completed in 2024.

Mr. Green thanked attendees and adjourned the December CSAC Quarterly Meeting.

APPENDIX: OPEN SESSION PARTICIPANT LIST

CSAC Members

Name	Organization
Lori Beer	JPMorgan Chase
Dave DeWalt	NightDragon
Ron Green	Mastercard
Royal Hansen	Google
Niloofar Razi Howe	Tenable
Chris Inglis	Former Office of the National Cyber Director
Rahul Jalali	Union Pacific
Doug Levin	K12 Security Information eXchange (SIX)
Kevin Mandia	Mandiant
Jeff Moss	DEF CON Communications
Nicole Perlroth	Cybersecurity Reporter
Robert Scott	New Hampshire Department of Environmental Services
George Stathakopoulos	Apple
Kevin Tierney	General Motors
Alex Tosheff	VMware
Nicole Wong	NWong Strategies

Government Participants

Name	Organization
The Hon. Jen Easterly	CISA
Adam Bachman	CISA
Vincent Chapman	CISA
Alaina Clark	CISA
Jonathan Dunn	CISA
Lisa Einstein	CISA
Jamie Fleece	CISA
Eric Goldstein	CISA
Bob Lord	CISA
James Nash	CISA
Joseph Oregon	CISA
Lily Pollard	CISA
David Rosado	CISA
Andrew Scott	CISA
Kiersten Todt	CISA
Megan Tsuyi	CISA

Contractor Support

Name	Organization
James Eustice	Edgesource
Mariefred Evans	TekSynap
John Holland	TekSynap
Cedric Sharps	TekSynap
Xavier Stewart	Edgesource

Additional Attendees

Name	Organization
John Curran	MeriTalk
Brett DeWitt	Mastercard
Justin Doubleday	Federal News Network
Ben Flatgard	JPMorgan Chase
Chris Frascella	Electronic Privacy Information Center
Sara Friedman	Inside Cybersecurity
Casey Gallimore	North American Meat Institute
John Greig	The Record
Katherine Gronberg	NightDragon
Rick Holmes	Union Pacific
Albert Kammler	Van Scoyoc Associates
Matt Kehoe	Apple
Tom Leithauser	Cybersecurity Policy Report
Katrina Manson	Bloomberg News
Benjamin Nussdorf	National Propane Gas Association
Charley Snyder	Google
Christian Vasquez	CyberScoop
Angela Weinman	Viasat
Molly Weisner	Federal Times

CERTIFICATION

I hereby certify that, to the best of my knowledge, the foregoing minutes are accurate and complete.

Mr. Ron Green (approved on 22 January 2024)
CISA Cybersecurity Advisory Committee Chair