January 3, 2020

The Honorable Elizabeth Warren
United States Senate
317 Hart Senate Office Building
Washington, D.C. 20510

Dear Senator Warren:

Thank you for your letter regarding the Federal Communications Commission's Communications Security, Reliability and Interoperability Council (CSRIC). CSRIC considers complex technical issues that affect communications stakeholders, including broadcasters, telecommunication providers, and state public safety entities such as 911 call centers.

In selecting members for CSRIC, the FCC issues a Public Notice (PN) soliciting nominations from all interested parties.[1] The PN provides instructions for the nomination process, including that nominations should provide an explanation of the individual's qualifications and additional reasons why the individual should be appointed.[2]

After the nomination window closes, the FCC considers the nominees based on criteria for implementing the Federal Advisory Committee Act—namely, whether the entities represented by the nominees would be directly affected by the matters likely to be addressed by the CSRIC and whether the nominees are qualified and have relevant experience. In assessing the nominees, the FCC considers whether the nominee possesses the necessary background to be able to make meaningful, substantive contributions on the topics that the CSRIC will examine. For those applying for membership as special governmental employees who would be appointed for their individual expertise (rather than to represent a company or other organization), the agency's focus is primarily on the expertise of those individuals. Its review of a nominee's background typically includes consideration of a nominee's academic and work experience; publication of relevant books, articles, or blogs; and any other experiences working on the relevant issues. Where a nominee has served as a member of a past CSRIC, the FCC considers whether the nominee meaningfully contributed in that capacity, including whether the person actively participated in the formulation and drafting of reports and recommendations, as contrasted with merely attending meetings and voting. The FCC also considers whether the nominee has demonstrated a commitment to improving public safety. Finally, the FCC considers whether the nominee and the organization the nominee represents would bring a unique perspective to CSRIC in light of the other possible nominees, balancing the membership as a

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[1] FCC Announces the Rechartering of the Communications Security, Reliability, and Interoperability Council for a Seventh Two-Year Term and Solicits Nominations for Membership, Public Notice, DA 19-292, 2019 WL 1724152 (Apr. 16, 2019).

[2] *Id.*

whole. Together, these criteria help to ensure that CSRIC representatives are knowledgeable and proficient in the designated topics, actively engaged, and reflect a variety of viewpoints.

The regulations implementing the Federal Advisory Committee Act direct federal agencies to formulate a membership balance plan that ensures "that, in the selection of members for the advisory committee, the agency will consider a cross-section of those directly affected, interested, and qualified, as appropriate to the nature and functions of the advisory committee," and that "[a]dvisory committees requiring technical expertise should include persons with demonstrated professional or personal qualifications and experience relevant to the functions and tasks to be performed." 41 CFR § 102-3.60(b)(3). In light of this mandate, qualified individuals who are nominated for CSRIC may often be employed in the private sector because of the complex technical matters that CSRIC is asked to address.

The complex topics before the current CSRIC (CSRIC VII) affect industry segments (e.g., broadcasters, wireline and wireless service providers, equipment manufacturers, software vendors) in different ways. Consequently, CSRIC members employed in the private sector often have differing interests and perspectives. There is rarely, if ever, a uniform "private sector" position on the issues that come before the CSRIC. The FCC considers these differing points of view from various industry sectors when balancing the expertise and viewpoints of the CSRIC membership. The FCC further balances and includes diverse points of view through the inclusion of state, local, federal, and Tribal governmental entities; public safety organizations; and consumer and community organizations. To promote diversity in its membership, the FCC also strives to select members from different areas of the country, with differing expertise, and representing organizations of different sizes. We are pleased that the National Emergency Number Association, International Association of Fire Chiefs, Association of Public Safety Communications Officials International, Inc., and the Texas 9-1-1 Alliance each have a representative on CSRIC VII. In addition, we are pleased that the other qualified individuals with diverse perspectives, such as the City of Riverside Fire Department, Federal Emergency Management Agency, and Harris County Texas, Office of Homeland Security & Emergency Management, are participating in CSRIC VII working groups.

I should note that there has been ongoing representation of Tribal interests from the first NRIC in 1992 to the present-day CSRIC VII. That includes Garrick DeClay, Bureau of Indian Affairs (CSRIC II, March 19, 2009 – March 18, 2011); Timothy Defoggi, Indian Health Service, U.S. Department of Health and Human Services (CSRIC III, March 19, 2011 - March 18, 2013); Howard W. Brown, Tulalip Data Services and Matthew Rantanen, Southern California Tribal Chairmen's Association, Tribal Digital Village (CSRIC IV, March 19, 2013 - March 18, 2015); Jonathan Powell, Cherokee Nation Industries, Inc. (CSRIC V, March 19, 2015 - March 18, 2017); and John Williamson, Administrative Sergeant, Nez Perce Tribal Police Department (CSRIC VII, March 15, 2019 - March 14, 2021).

The purpose of CSRIC is to provide recommendations to the FCC regarding ways the FCC can improve the security, reliability, and interoperability of communications systems. CSRIC's recommendations focus on a range of public safety and homeland security-related communications matters, including: (1) the reliability of communications systems and infrastructure; (2) 911, Enhanced 911 (E911), and Next Generation 911 (NG911); (3) emergency

alerting; and (4) national security/emergency preparedness (NS/EP) communications, including law enforcement access to communications. The Chairman identifies more granular topics that are examined in detail in working groups, which assist the CSRIC and produce reports and recommendations voted on by the full CSRIC.

Under my leadership, the FCC asked CSRIC VI to:
- Recommend best practices for improving the 911 system reliability and resiliency during the NG911 transition.
- Study and develop recommendations on best practices applicable to small carriers for managing the transition to NG911.
- Recommend additional best practices and guidance regarding overall monitoring, reliability, notifications, and accountability in preventing 911 outages in transitional NG911 environments.
- Conduct a comprehensive evaluation of emergency alerting and emerging technologies that may result in new alerting capabilities.
- Develop best practices to mitigate the network reliability and security risks associated with the Diameter protocol, an industry standard for connecting and authenticating subscribers on mobile networks.
- Recommend mechanisms to best design and deploy 5G networks to mitigate risks to network reliability and security posed by the proliferation of Internet of Things devices, vulnerable supply chains, and open-source software platforms used in 5G networks.
- Develop best practices and tools to improve reliability and reduce security risks in IP-based networks and protocols.

In addition, under my leadership, the FCC recently tasked CSRIC VII with:
- Recommending a standard operating procedure for emergency alerting communications that emphasize engagement with all entities that contribute to the dissemination of fast and reliable emergency information to the public.
- Studying the risks to 5G from legacy vulnerabilities and recommend best practices for mitigating the vulnerabilities.
- Studying the security risk in emerging 5G implementations and recommend strategies to minimize those risk.
- Identifying security risks in legacy 911 networks, transitional 911 networks, and NG911 networks and recommend best practices for risk mitigation.
- Developing best practices for improving broadcast resiliency during major storms and disasters.
- Reviewing the security vulnerabilities affecting the Session Initiation Protocol and recommend best practices for mitigation.

CSRIC V (which concluded during my tenure) adopted a 911 Location-Based Routing Final Report, a Optimizing PSAP Re-Routes Final Report, a Social Media & Complementary Alerting Methods Final Report, a Wireless Emergency Alerts & Geo-Targeting Final Report, a WEA Security Final Report, a Multilingual Alerting Recommendations Final Report, an

Updating EAS Operating Handbook Final Report, an EAS Security Best Practices Adoption Final Report, a Clustering of Cables and Cable Landings Final Report, an International and Interjurisdictional Coordination Final Report, a Network Timing Single Source Risk Reduction Final Report, a Cybersecurity Information Sharing Final Report, an Information Sharing Barriers Report, a Voluntary Security-by-Design Final Report, a Security Hardware and Software Security-by-Design Final Report, a Cybersecurity Workforce Final Report, a Priority Services Final Report, a Wi-Fi Security Final Report, and a Legacy Systems Risk Reductions Final Report. In turn, CSRIC VI (which was chartered under my leadership) adopted a Recommendations for 911 System Reliability and Resiliency During the NG911 Transition Final Report, a Small Carrier NG911 Transition Report, a Security Aspects of EAS Report, a Comprehensive Re-Imagining of Emergency Alerting Final Report, a Best Practices and Recommendations to Mitigate Security Risks to Current IP-Based Protocols Report, a Report on 5G, and a Recommendations to Mitigate Security Risk for Diameter Networks Final Report. These as well as other documents adopted by previous CSRICs are available on the CSRIC website at https://www.fcc.gov/about-fcc/advisory-committees/communications-security-reliability-and-interoperability-council-0. These reports and recommendations help inform the FCC, which then may rely on them to inform policies and take appropriate action.

For example, CSRIC IV examined the feasibility and desirability of improvements to the geo-targeting capabilities of wireless emergency alerts (WEA).[3] The Commission sought public comment on CSRIC IV's analysis and recommendations when it proposed geo-targeting requirements in its 2015 *Notice of Proposed Rulemaking*.[4] These proposals were adopted in 2016 when the Commission required participating commercial service providers to deliver WEA messages to an area that "best approximates" the area specified by the alert originator. The Commission then sought comment on CSRIC V's analysis and recommendations to further refine WEA geo-targeting requirements.[5] In 2018, under my leadership, the Commission adopted a *Report and Order* which strengthened WEA geo-targeting rules to require participating commercial mobile service providers to deliver WEA messages to an area that matches the target area specified by alert originators.[6]

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[3] *See* CSRIC VII, Geographic Targeting, Message Content and Character Limitation Subgroup Report (Oct. 2014), https://transition.fcc.gov/pshs/advisory/csric4/CSRIC_CMAS_Geo-Target_Msg_Content_Msg_Len_Rpt_Final.pdf.

[4] *Improving Wireless Emergency Alerts and Community-Initiated Alerting*, PS Docket No. 15-91, Notice of Proposed Rulemaking, 30 FCC Rcd 13781 (2015) (WEA NPRM). The WEA NPRM is available at https://www.fcc.gov/document/improving-wireless-emergency-alerts-and-community-initiated-alerting-0.

[5] *Wireless Emergency Alerts; Amendments to Part 11 of the Commission's Rules Regarding the Emergency Alert System*, PS Docket Nos. 15-91, 15-94, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 11112 (2016) (WEA R&O and WEA FNPRM). The WEA R&O and WEA FNPRM is available at https://www.fcc.gov/document/improving-wireless-emergency-alerts-and-community-initiated-alerting-1. *See also* CSRIC V, Working Group Two, Wireless Emergency Alerts – Recommendations to Improve Geo-Targeting and Offer Many-to-One Capabilities, Final Report and Recommendations (2016), https://transition.fcc.gov/bureaus/pshs/advisory/csric5/WG2_WEA-GeoTarget_091416.docx.
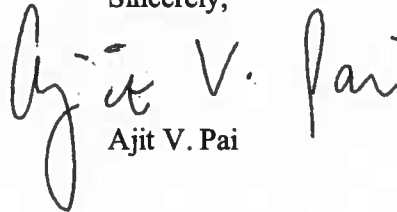
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As another example, in 2018, following CSRIC VI's Report on 911 Location-Based Routing,[7] the FCC sought public comment on CSRIC VI's recommendations on actions the FCC could take to promote reliable communications services, including 911, E911, and NG911 service, in a *Notice of Inquiry on Location-Based Routing of Wireless 911 Calls.*[8]

You express concern in your letter that "when the Council convened a working group to study and recommend best practices for cybersecurity under former Chairman Wheeler, the resulting 2015 report recommended making voluntary—rather than mandatory—commitments to follow the Commerce Department's National Institute of Standards and Technology cybersecurity frameworks. The panel made a similar decision a year later, again recommending a set of nonbinding guidances [*sic*] for carriers as opposed to mandatory requirements to address significant security concerns relating to Signaling System No. 7 (SS7), a critical piece of telecommunications infrastructure that enables carrier interoperability and is famously vulnerable to hacking." I do not have any personal knowledge regarding how and why Chairman Wheeler constituted CSRIC as he did during his tenure or how CSRIC affected decision-making within the Chairman's Office during that time. Accordingly, I cannot express a view on the concern you expressed.

I appreciate your interest in this matter. Please let me know if I can be of any further assistance.

Sincerely,

Ajit V. Pai

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[8] *Location-Based Routing for Wireless 911 Calls*, PS Docket No. 18-64, Notice of Inquiry, 33 FCC Rcd 3238 (2018) (*911 Call Routing NOI*).

OFFICE OF
THE CHAIRMAN

January 3, 2020

The Honorable Pramila Jayapal
U.S. House of Representatives
319 Cannon House Office Building
Washington, D.C. 20515

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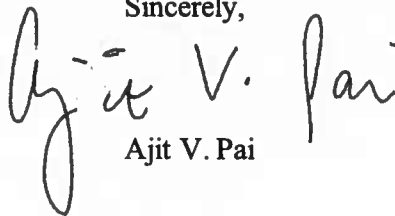
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