

National Infrastructure Advisory Council (NIAC)



Executive Order-Presidential Policy Directive Working Group (EO-PPD WG)

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Agenda

- ❑ Framing Questions for Information Sharing
- ❑ Working Group Recommendations on Cybersecurity Information Sharing
- ❑ Appendix

Framing Questions On Information Sharing

- ❑ What obstacles do you see in the current information sharing environment with the Federal government and with the state and local government? What do your employees see when they try to obtain or send information to the Federal government? What causes the most heartburn and inefficiencies that demotivate sharing of information with the Federal government or with the SLTT?
- ❑ What are incentives to increased information exchange?
- ❑ What are the most effective mechanisms/processes that you have seen?
- ❑ What are the unique aspects of cyber information sharing that might differ from physical information sharing? Is the right information reaching the right people to take the action that is needed? If not, how can this be addressed specifically for cyber information sharing?

Framing Questions On Information Sharing

- ❑ What principles or actions that can be taken to be most likely to encourage voluntary information sharing? Least likely?
- ❑ What is the core value proposition for two-way cyber related information sharing?
- ❑ How should the Federal Government and private sector owners and operators track metrics for timely and coordinated sharing of cyber threat information and situational awareness at appropriate classifications? What might be the metrics for effective information sharing in both cyber and physical/operational dimensions?

Working Group Recommendations



On Cybersecurity Information
Sharing

The EO-PPD Information Sharing Framework

- ❑ Aligned with the private sector's need for sharing timely and actionable information
- ❑ Can benefit all critical infrastructure sectors
- ❑ A significant challenge is to share information in a timely, specific and actionable way between the Government and private sector
- ❑ Creation of a "safe harbor"
- ❑ A recognition that information will only be used for intended purposes combined with limited anti-trust and privacy regulation protection, when acting in good faith, will encourage greater private sector participation in the information sharing program.

Incentives

- ❑ The opportunity to receive timely and actionable information, by itself, is a significant incentive for companies to opt into the information sharing program
- ❑ Additional incentives could include technical guidelines, support and sharing of cyber security practices between DHS/NSA and the private sector.

Effective Mechanisms

- ❑ The private sector needs easy access to indicators via a portal similar to those used by HSIN and US-CERT. Information must be in a format and specificity that can be used by each company to search their own security logs (i.e. IP addresses, domains, malware hashes, etc.).
- ❑ Sharing specific vulnerabilities, threats, methods and motivations of attackers will also help private sectors make more accurate and effective use of resources to improve cybersecurity postures.

Effective Mechanisms Continued

- ❑ All current Federal mechanisms for Information Sharing (one-on-one, US-CERT, Intelligence briefings,...) should be reviewed with the goal of simplifying processes, eliminate redundancy , improve coordination among different Federal agencies and ensure consistency of information delivered as suggested by the NIAC in 2012.
- ❑ DHS should collaborate with the private sector on information sharing work process definition, to ensure that procedures are effective and efficient for exchanging information between the owners and operators and government at all levels.

Classification of information in the management of Cybersecurity

- ❑ Another significant barrier to an effective information sharing program is the structure in how information is classified.
- ❑ Information needs to be more finely divided, so that as much of what is shared as possible can be declassified. That will allow more information to be disseminated among the private sector to resources that can take specific actions.

Classification of information in the management of Cybersecurity Continued

- ❑ Although DHS plans to expedite clearances, there needs to be more clarity on how classified information can be used within a company whose monitoring systems will not be certified for classified information. If action is to be taken, information needs to be declassified for deeper and broader communication within a company or industry.
- ❑ Execution of cyber security does not just fall within the CISO or CIO. Unlike some information that could be actionable despite being highly compartmentalized, because of the use and implementation of Information Technology systems and controls across entire facilities and organizations, there is a need for cybersecurity information to be disseminated more broadly. This direction has been provided for in the new Executive Order.

Principles to encourage information sharing

- ❑ Recognizing that the concerns of the private sector in sharing information may inhibit the desired level of this sharing, the Federal government should adopt a policy that specifically addresses concerns that information sharing could lead to governmental inquiries and regulation beyond the original particular purpose for which information may have been offered.
- ❑ DHS PCII (Protect Critical Infrastructure Information) is a good example of a program that can be leveraged in other sectors to address this concern.

Principles to encourage information sharing Continued

- ❑ To allay such concerns, and in appreciation of the greater benefits that may arise from encouraged information sharing by the private sector to the public authorities, the Federal government could, for example, provide mechanisms to assure that information will remain confidential and not disseminated within the government except where there are legitimate and compelling reasons to do so.
- ❑ To further illustrate, such mechanisms might range from the designation of particular means and channels of communication to assure confidentiality, to the creation of “safe harbors” whereby private sector entities could have limited anti-trust protection, the ability to divulge information free of civil or criminal liability under privacy protection laws, and to the establishment of exceptions for disclosure regarding cyber incidents by SEC public reporting¹³ companies under limited conditions.

Metrics

- ❑ As stated in the National Infrastructure Protection Plan, information sharing is a means to an end, not an end itself.
- ❑ An information sharing effort should recognize, understand, and concur with a common goal. The Homeland Security Studies and Analysis Institute (HSSAI), a non-profit federally funded research and development center operated by Analytic Services Inc. on behalf of the DHS has created document entitled “Metrics for Measuring the Efficacy of Critical Infrastructure-Centric Cybersecurity Information Sharing Efforts. This document details options for metrics which include the attributes of effective information sharing (i.e. relevance, timeliness, accuracy, etc.) and the outcome based goal of information sharing which is primarily ‘no loss of control’.
- ❑ We recommend that, if the Integrated Task Force is not leveraging this document, that it serve as the framework for the development of the metrics.

Appendix

Working Group Members

WG Member	Sector Expertise
David E. Kepler , <i>Executive Vice President/ Chief Sustainability Officer, Chief Information Officer, The Dow Chemical Company, Co-Chair</i>	Chemical
Philip Heasley , <i>President and CEO, ACI Worldwide, Co-Chair</i>	Telecommunications
Glenn S. Gerstell , <i>Managing Partner, Milbank, Tweed, Hadley, & McCloy LLP</i>	Water, Telecommunications
Michael J. Wallace , <i>Former Vice Chairman and COO, Constellation Energy</i>	Electricity, Nuclear