

## **CASE STUDY: EXPANDING CYBERSECURITY AT A PREMIER FFRDC STREAMLINING DATA FLOW FOR NATIONAL SECURITY**



### **INTRODUCTION**

In the realm of national security, the protection and management of Controlled Unclassified Information (CUI) is paramount. A leading Federally Funded Research and Development Center (FFRDC), renowned for its extensive research and development in advanced technologies, faced challenges in understanding the complexities of CUI within its operations. Edwards Performance Solutions stepped in to conduct a comprehensive Data Flow Diagramming Exercise, unveiling layers of insights and bolstering the FFRDC's cybersecurity posture.

### **CHALLENGE**

The FFRDC's initial hesitation stemmed from a perceived confidence in their identification of the locations and nature of CUI within the organization. However, given the distributed nature of the organization, a comprehensive picture of where CUI had yet to be fully realized. The lack of clarity on system and data ownership and responsibility for security decisions further complicated their cybersecurity landscape.

### **STAKEHOLDER ENGAGEMENT**

The exercise brought together Division IT Managers, central IT group members, and most importantly, representatives from the Director's Office. This diverse stakeholder group facilitated a rich dialogue, uncovering the location and nature of CUI and how it flowed, illuminating the need for well-documented authority and responsibility for CUI data across new and existing laboratory systems.

### **UNVEILING KEY CHALLENGES**

A pivotal revelation was the distributed nature of system ownership and management, and the siloed use of CUI throughout the organization. The exercise prompted crucial discussions on delineating responsibilities, ensuring that every system had a clear owner accountable for its security and data management.

### **METHODOLOGICAL INSIGHTS**

Under the guidance of Edwards' experts, the engagement employed targeted stakeholder interviews and advanced data flow diagramming techniques to map out data flows and system responsibilities. Once individual Division data flow diagrams were completed, they were consolidated in a centralized database that enabled the identification of all CUI data flows and systems throughout the enterprise. Edwards approach allowed each Division to validate their portion individually, making the final CUI asset determination only after each team had validated their portion. Even though some systems were used by dozens of divisions, this approach allowed for proper asset categorization at the enterprise level.



There's always a method behind the madness. Once we were able to attain buy-in from their team... the DFD process, while challenging at every turn, provided focus with respect to the assets and information requiring protection by DFARS direction.



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## CULTURAL TRANSFORMATION

The project catalyzed a significant shift in the operational mindset towards understanding and controlling the flow of information to enhance its cybersecurity posture. By establishing clear ownership and responsibility for system security, the FFRDC was able to assess its organizational structure and how technology assets are managed throughout the enterprise, enabling more effective management and collaboration on system and data security.

## FUTURE DIRECTIONS

Looking ahead, the exercise and resulting deliverables has laid a solid foundation for the FFRDC's ongoing readiness preparations for CMMC compliance, and serve as a foundation for the next phase of the CMMC readiness effort. Edwards is using these valuable insights into user ownership and asset utilization to streamline the FFRDC's approach to data management and security.

## CONCLUSION

The Data Flow Diagramming Exercise conducted by Edwards Performance Solutions at the FFRDC has not only solidified the foundation of their cybersecurity framework but also paved the way for further advancements in their security posture. With the successful definition of scope and precise labeling of assets, the project has transitioned seamlessly into Phases 2 and 3. These next steps involve Edwards conducting a comprehensive Gap Assessment of the FFRDC's in-scope environment, meticulously comparing, and implementing of current practices and requirements of NIST-800-171 and CMMC Level 2 Standards.

This progression underscores the importance of a well-defined scope and clear asset identification as crucial precursors to any in-depth security assessment. Edwards' expertise in navigating these complex business process and regulatory landscapes ensures that the FFRDC is not only compliant but also equipped with a robust, scalable cybersecurity strategy. The collaboration between Edwards and the FFRDC exemplifies a proactive approach to national security challenges, emphasizing the value of strategic partnership in achieving and maintaining the highest standards of data protection and cybersecurity compliance.

## LET'S TALK



For more information about Edwards Performance Solutions, contact [info@edwps.com](mailto:info@edwps.com).

*Edwards Performance Solutions is a WOSB appraised at CMMI Maturity Level 3 and ISO 9001:2001, as well as the only organization fully supporting the CMMC ecosystem (C3PAO, RPO, LTP, and LPP).*