



# Technical Proposal

## Problem statement

The **Defense Industrial Base “DIB”** is confronted with a significant challenge in meeting the compliance requirements of the **Department of Defense, Rule 32CFR170, Cybersecurity Maturity Model Certification “CMMC”**. The traditional implementation of NIST SP 800-171R2 methodology can typically take anywhere between 6 and 14 months and demands extensive labor and resources. Compounding this issue is a shortage of experienced professionals trained in the NIST RMF process, making it difficult to efficiently navigate this complex compliance landscape.

Moreover, the high cost of hiring qualified, certified, and experienced personnel is placing additional strain on DIB budgets. This financial burden is further exacerbated by factors such as audit fatigue, sustainment costs, staffing shortages, and deployment demands, making it increasingly difficult for the customer to manage and sustain compliance efforts effectively.

Many organizations are finding the traditional process increasingly challenging as they strive to quickly assess and authorize new technologies. The need to keep pace with the rapid deployment of new applications and efficiently meet organizational priorities is driving the demand for a more streamlined and expedited NIST SP 800-171R2 process.

## Solution

APS Global, LLC provides LLM products that assist in the clarification of submitted regulatory practices. Generating true and accurate information is at the heart of APS Global’s mission, “To provide the assessor with assistance determining compliance of regulatory requirements.”

APS Global has developed LLUCE - the LLM Universal Compliance Engine. LLUCE is designed and trained to give objective, fact-based evaluation of text and graphical information such as network diagrams to support ATO and other assessment requirements. LLUCE also can create new versions of the original environment, to meet both scalability and agency-unique regulatory requirements. The AI/LLM products under the LLUCE portfolio currently offered in production by APS Global are:

1. CompassAPT – DOD CMMC (NIST SP 800-171 r2) and NIST standards (including SP 800-53 r5 and 800-171 r3)
2. PolarisFCA – FDIC/FFIEC/CSF v2.0 Audit/Assessment
3. PraesidiaHCA – HIPPA/HIPC Audit Assessment
4. BenedexGCA – Federal & State Grant “Red Team” Review



**APS Global's CompassAPT and PolarisFCA products are currently in production and are serving clients.**

The APS Global, LLC LLUCE-CompassAPT solution enables rapid and efficient review and mapping of cybersecurity compliance documentation against regulatory requirements, ensuring clear demonstration of compliance. APS Global AI Engineers use a series of proprietary Quality Assurance queries (Question/Response) to measure the LLM focus and emphasize data validation.

The LLUC-CompassAPT solution includes document gap analysis, Plan of Action & Milestones (POA&M) evaluation, and delta assessments with remediation suggestions. This not only reduces the time and effort required but also allows for scalability, delivering a tenfold improvement in time savings. Additionally, it supports a certified assessor-in-the-loop validation to ensure accuracy and compliance.

The LLUCE has already developed and implemented methodologies to identify and mitigate AI risk (both operational and supply chain) by quantifying and adjusting the level of human vs. automation in model development, training, testing, and deployment phases. LLUCE-based products also leverage Retrieval Augmented Generation (RAG) to focus the text output towards accurate, authoritative answers. CompassAPT, PolarisFCA and PraesidiaHCA each optimize the data set through the inclusion of, and focus upon, specific regulatory documentation (which are outside data sources that are both authoritative and pre-determined).

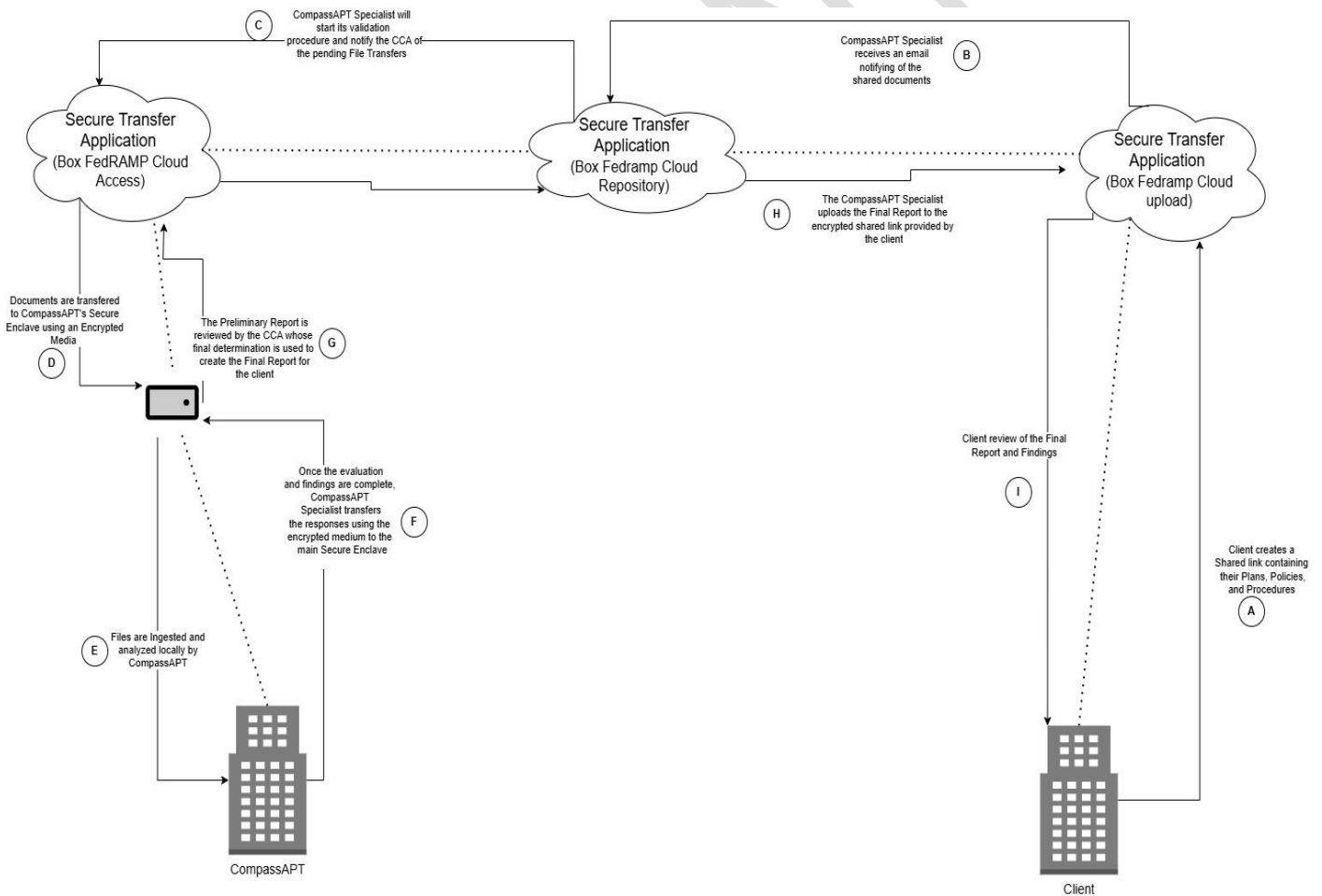
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## Protection level

The LLUCE-CompassAPT solution is fully compliant with Defense Information Systems Agency (DISA) and Department of Defense (DoD) impact levels for FedRAMP; it also adheres to the requirements of DoDI 5200.48 for Controlled Unclassified Information (CUI), covering DoD Impact Level 4 (IL4), which addresses security for CUI, including information for official use only, personal health information, personally identifiable information, non-critical mission data, and non-national security systems.

Additionally, the LLUCE-CompassAPT solution supports DoD Impact Level 5 (IL5), which pertains to highly sensitive information, mission-critical data, and non-national security systems. While IL5 and IL6 are closely aligned, IL6 specifically includes information and systems classified as secret. With provisioning by the government our solution is capable of handling data up to DoD Impact Level 6 (IL6).

### Existing Production Method for Transferring Documentation for CompassAPT Review





## Protection level (cont.)

- Clients securely upload their Files via a Secure Transfer Application (STA), such as Box or PreVeil, providing APS Global a link to their File Share.
- Upon receiving email notice that the link has been created, a CompassAPT Specialist signs into the STA Cloud Repository to access the files (i.e., Plans and Procedures documents) and then transfers the Client files out of their STA Cloud Repository and loads them onto APS Global's local CompassAPT server ("Enclave"). The Enclave is offline and protected; it has no connectivity to the internet beyond its use of secure file share applications/links to download Client File Share.
- As CompassAPT already knows the specific regulatory documentation (e.g., NIST Standards), it then ingests the files and performs the desired processing and evaluation of Client's documentation (Plans/Policies) and provides its Final Report findings in a variety of formats, including EXCEL/WORD/PDF/E-BOOK, depending upon the Client's needs or preferences.
- Once completed, the Final Report will then be uploaded to the Client via their Secure Transfer Application, on the provided Share Link. The Client files that had been downloaded to CompassAPT are then wiped or returned to the Client via the Share Link, per Client preference. In either case, CompassAPT does not retain, keep, store, or remember the Client files or submitted documentation package, or any copies of same, once the Final Report is completed.
- CompassAPT is kept OFF-LINE, and data transfer between FEDRAMP Moderate Cloud Service (e.g., BOX) and CompassAPT are analogous to the Government's process for off-line environments.
- CompassAPT System Updates are performed in a DEVELOPMENT/TEST Environment before being transferred to CompassAPT Production Server(s).

## Proof of Value

APS Global LLC's LLUCE solution is already commercially available and has been thoroughly vetted to meet the rigorous demands of real-world applications, placing it at a Technology Readiness Level (TRL) 8. This indicates that our tool is not only fully developed but also proven in operational environments, making it a robust and reliable option for **Defense Industrial Base** companies seeking CMMC Level 2 compliance.