

ACHIEVING MISSION SUCCESS WITH CONTINUOUS DIAGNOSTICS AND MITIGATION (CDM)

Building Cyber Operational Agility into Federal IT

CDM - AN INTRODUCTION

As the Continuous Diagnostics and Mitigation (CDM) program matures, it requires a new way of thinking. While agencies will continue to buy tools to fill gaps in their defenses, they need to start thinking about how those tools fit into their larger cybersecurity strategy.

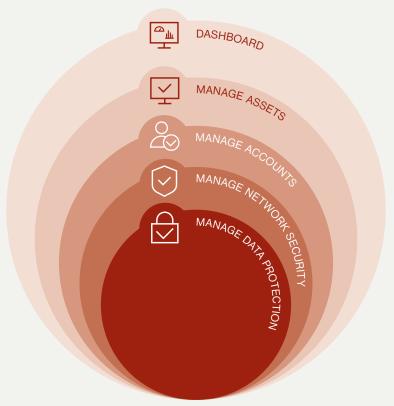
The CDM program has shifted from one previously organized by phases to one that is now organized by capability areas defined by asset management, identity and access management, network security management, and data protection management as referenced in Figure 1.

The initial task orders under the program were tool-oriented, with a focus on automating the ability to identify, profile and scan assets on the network and improve visibility into credentialed and privileged users. Task orders related to these initial phases were issued against the (now retired) CDM Tools/Continuous Monitoring as a Service (CMaaS) blanket purchase agreements, and typically ran two or three years.

CDM efforts shifted gears with the current Dynamic and Evolving Federal Enterprise Network Defense (DEFEND) program. DEFEND ushers in a move away from "phases" and toward "capability areas" that focus on more advanced capabilities, including incident response, mobile security, cloud security, network access controls and data protection.

DEFEND has also laid the groundwork for a shift from a "compliance-focused" security to one of true "operational security improvement," providing agencies with the ability to be creative and to implement innovative solutions that can have a meaningful impact. CDM requirements also dovetail nicely with the White House's current IT modernization efforts.







CROWDSTRIKE ENABLES CDM

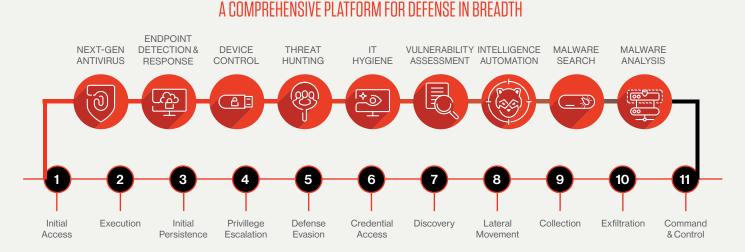
CrowdStrike® is uniquely positioned to help deliver on the main goal of CDM: **Cyber Operational Excellence.**CrowdStrike natively supports and enables federal agencies and organizations by intelligently bridging the gap between the Federal Cloud First/Cloud Smart initiatives and the modernization mandate of CDM DEFEND that encourages the adoption of cloud-based cybersecurity technologies and protection of cloud-based assets.

Agencies already understand and have realized the agility and cost benefits associated with the software-as-aservice (SaaS) model provided in the form of CRM, HR and other business-critical solutions. CrowdStrike has extended those benefits to cybersecurity and leads the industry with its cloud-native architecture. CrowdStrike solutions drive down the cost and complexity associated with legacy security architectures that have proven unable to meet the latest challenges in information security.

The CrowdStrike Falcon® platform provides federal agencies with the unique ability to upgrade their current cyber operations capabilities to detect and prevent never-before-seen attacks while they are still in progress — protecting them against threats their conventional defenses can't even see.

CrowdStrike industry leadership has helped define an entirely new science for detecting adversary activity before it's too late. Instead of relying solely on indicators of compromise (IOCs) to determine whether a breach has already occurred, CrowdStrike is also able to identify active indicators of attack (IOAs) to detect and curtail adversary activity before a breach occurs.

The CrowdStrike Falcon Platform is both FedRAMP Authorized and listed on the CDM Approved Products List (APL).



VIA A SINGLE LIGHTWEIGHT AGENT

Figure 2. The CrowdStrike Falcon platform aligns with the Mitre Att&ck™ framework and addresses many areas of each CDM phase.



CDM MODERNIZATION

The Modernizing Government Technology (MGT) Act will provide federal agencies with \$500 million over the next two years to update legacy systems. The MGT Act, along with the American Technology Council's "Report to the President on Federal IT Modernization," calls on agencies to use new and emerging technologies, such as cloud computing, to replace older systems that impose an increased security risk.

Most agency security architectures were designed prior to the use of software-as-a-service (SaaS) and other "as-a-service" offerings critical to delivering cyber capabilities with the speed and agility required in the twenty-first century.

As federal agencies meet CDM goals, they can use the program as a springboard to improve their overall cyber capabilities. For many agencies, this will involve an in-depth defense approach, where they build security architectures into a cohesive system structured around cyber visibility.

Because today's federal agencies closely resemble and are expected to deliver services similar to other modern work environments, the convergence of CDM DEFEND, along with larger U.S. Government IT modernization efforts, provides a real opportunity for improving agencies' abilities to go far beyond scanning baselines and asset baselines in favor of modern, integrated cyber defense platforms. These new platforms can empower robust cyber operations capabilities, including positively identifying meaningful and relevant indicators, operationalizing analysis of threat intelligence, and orchestrating responses.

Most security architectures, including early stage CDM technologies, are myopically focused on identifying assets and vulnerabilities in the hopes of stopping malware. However, the problem is no longer just about malware and vulnerabilities — it is about the adversaries themselves. This new breed of adversary is extremely skilled, often well-funded and utterly relentless in outsmarting and bypassing malware-based defenses. In fact, malware is only responsible for 4 out of every 10 attacks. The modern cyber resilience challenge is about identifying these sophisticated adversaries — detecting their actions at the earliest possible stage of an attack, and actively preventing their attacks from becoming damaging security breaches — precisely the ultimate goal of CDM.



MAPPING CROWDSTRIKE AND CDM

The flexibility of the innovative CrowdStrike Falcon platform offers federal agencies a host of capabilities that map directly to requirements spanning multiple phases of the CDM program. CrowdStrike's extensible technology and unparalleled fidelity of captured data equally enable the established compliance-based security mandates of CDM, as well as deliver on the ultimate goal of superior cyber operational agility. Figure 3 provides a general mapping of where and how the CrowdStrike platform enables CDM:

MAPPING CROWDSTRIKE AND CDM

Manage Assets: (Phase 1) What's on the network?

Manage Network Security (Phase 3): What is happening on the Network

CDM DEFEND (Task 5): Surge Response

Falcon Discover Falcon Spotlight

IT Hygiene

Vulnerability Assessment

- Visibility across all systems, applications and users
- Ability to identify unauthorized systems and applications in real time

Falcon Prevent Falcon Insight

Next-Gen AV

Endpoint Detection & Response (EDR)

- Stop malware, ransomware and modern threats
- Close security gaps left by legacy AV
- Add behavioral analysis and machine learning to detect indicators of attack before damage occurs

Falcon OverWatch Falcon X

Managed Threat Hunting

Automated Threat Intelligence

- Expert hunters search for threats in your environment
- Respond quickly with intel that gives you the "who, what & where" of an attack

CrowdStrike Services

Proactive & IR

Cyber Readiness & Resiliency

- Incident response (IR investigations
- Compromise assessment
- Cybersecurity maturity assessment
- Red team/ blue team and tabletop exercises

Integrated Platform, Cloud-Native Architecture, Powered by Intelligence, Delivered Via One Lightweight Agent

Figure 3. This diagram shows how CrowdStrike capabilities map to the CDM program.



Falcon Discover™

CrowdStrike Falcon Discover provides multiple forms of relevant and usable IT hygiene features including, but not limited to, real-time visibility across application inventory and credential usage, rogue system ID, and cloud visibility and management.

Falcon Spotlight™

Falcon Spotlight provides the unprecedented collection and usability of vulnerability data — eliminating the blind spots created by slow and burdensome legacy scanning tools that can produce silos of operationally inefficient output. Nimble incident response requires real-time, comprehensive data that can cut minutes or hours from response time.

Falcon Prevent™

CrowdStrike's next-gen antivirus technology provides an Industry-leading array of powerful methods to defend against the rapidly changing tactics, techniques and procedures (TTPs) used by adversaries to breach organizations — including commodity malware, zero-day malware and advanced malware-free attacks.

Falcon Insight™

CrowdStrike's endpoint detection and response (EDR) solution provides continuous and comprehensive visibility into what is happening on network endpoints with real-time monitoring capabilities that span detection, response and forensics. Even organizations with a mature cybersecurity infrastructure know that some compromise is inevitable and that leveraging next-gen EDR capabilities is a critical requirement for stopping incidents from becoming breaches.

Falcon OverWatch™

The CrowdStrike managed threat hunting team adds a crucial layer of oversight and analysis to ensure that threats don't get missed — ultimately, providing real-time protection against a mega-breach. This service comprises an elite team of seasoned security experts who proactively hunt, investigate and advise on threat activity in your environment.

Falcon X™

This solution automates the threat analysis process and delivers contextualized, actionable intelligence and custom IOCs specifically tailored for the threats encountered on your agency's endpoints. Falcon X automation enables all teams, regardless of size or sophistication, to understand better, respond faster and proactively get ahead of the attacker's next move.

CrowdStrike Services

CrowdStrike Services provides both proactive and incident response (IR) services. Proactive services help agencies assess their security postures and cybersecurity readiness, while the experienced CrowdStrike IR team responds to incidents, returning normal operations quickly and effectively.



NAVIGATING CDM

Understanding, let alone navigating, the intricacies of a program as wide-reaching as CDM can be daunting. CrowdStrike wants to partner with you to ensure your organization's success with the CDM program. Aside from meeting many of the program's technical requirements, the inclusion of the Falcon platform on the CDM Approved Products List (APL) and CrowdStrike's commitment to helping modernize your agency's cyber capabilities can ensure a successful implementation. In addition, CrowdStrike can assist with navigating the program itself, and the processes involved with acquiring and leveraging the capabilities associated with CDM.

HOW TO REQUEST CROWDSTRIKE'S HELP

The following graphic provides a glimpse into the Request for Service (RFS) process introduced with CDM DEFEND. This process improves CDM effectiveness for agencies by capitalizing on the successes of the early CDM phases, while simultaneously leveraging lessons learned to eliminate common obstacles to adoption.

For assistance, please contact CrowdStrike Federal Sales directly at email: CDM@CrowdStrike.com

CDM DEFEND: REOUEST FOR SERVICE PROCESS



Figure 4. This diagram shows the phases of the CDM DEFEND RFS process.



THE BENEFITS OF USING THE CDM RFS PROCESS:

- Accelerates the acquisition timeline to ensure streamlined procurement
- Controls CDM architectural strategy: defines and retains the desired standards for the agency
- Reduces risk through demonstrated alignment to guidance (OMB 19-02)
- Prioritizes the right cyber investments to align with your agency's cyberstrategy
- Expands and augments access to funding to deploy critical capabilities to the enterprise

WAYS TO LEVERAGE THE CDM PROCESS:

- Map planned cyber investments to CDM Capability Areas: CDM is an enabler
 - · Review the full scope of planned and prioritized cyber investments/enhancements
 - Map those against CDM requirements understand where the program can enable agency strategy
 - · Identify connectivity to early phase capabilities and requirements to drive prioritization of prospective RFS
- Develop a baseline RFS: define agency standards and detail requirements
 - Draft the RFS with a focus on tying it to initial CDM capabilities
 - · Justify prioritization of that technical capability in your environment
 - · Target near-term, high-value CDM functional capability (visibility, what's not working, cloud, etc.)
- Engage CDM PMO: gain insight into their prioritization
 - Be an active participant in the dialog and a voice for your agency's agenda
 - · Understand its guidance for getting what you need from your integrator
 - · Identify Intersection with external policy mandates
 - HVA Program
 - MEGABYTE Act
 - MGT Act/ modernization initiatives
- Contribute funding: funding your own RFS for cyber investments through DEFEND has many benefits
 - Accelerated acquisition with reduced paperwork requirements
 - · Ability to expand/augment funding to take pilots to enterprise deployments
 - · Allows you to control your standards and architectural strategy through the program as an active participant
 - Ensures alignment to OMB 19-02/03



CDM BACKGROUND

In 2012, the Office of Management and Budget (OMB) identified continuous monitoring of federal IT networks as one of 14 Cross-Agency Priority Goals, established in accordance with the Government Performance and Results Modernization Act (GPRMA).

Subsequently, the Department of Homeland Security (DHS) established the CDM program to "support governmentwide and agency-specific efforts to provide adequate, risk-based and cost-effective cybersecurity."

The CDM program is a dynamic approach to fortifying the cybersecurity of government networks and systems. CDM provides federal departments and agencies with capabilities and tools that identify cybersecurity risks on an ongoing basis, prioritize these risks based on potential impacts, and enable cybersecurity personnel to mitigate the most significant problems first.

The goals and objectives of the program are:

- Reduce agency threat surface
- Streamline Federal Information Security Modernization Act (FISMA) Reporting
- Increase visibility into the federal cybersecurity posture
- Improve federal cybersecurity response capabilities

In August 2013, the DHS, in partnership with the General Services Administration (GSA), established governmentwide Blanket Purchase Agreements (BPAs) known as the CDM Tools/Continuous Monitoring as a Service (CMaaS). The CDM Tools/CMaaS BPAs expired in August 2018 and were replaced with a new dual-pronged acquisition strategy: CDM Dynamic and Evolving Federal Enterprise Network Defense (DEFEND).

ABOUT CROWDSTRIKE

CrowdStrike® Inc., a global cybersecurity leader, is redefining security for the cloud era with an endpoint protection platform built from the ground up to stop breaches. The CrowdStrike Falcon® platform's single lightweight-agent architecture leverages cloud-scale artificial intelligence (AI) and offers real-time protection and visibility across the enterprise, preventing attacks on endpoints on or off the network. Powered by the proprietary CrowdStrike Threat Graph®, CrowdStrike Falcon correlates over two trillion endpoint-related events per week in real time from across the globe, fueling one of the world's most advanced data platforms for security.

With CrowdStrike, customers benefit from better protection, better performance and immediate time-to-value delivered by the cloud-native Falcon platform.

There's only one thing to remember about CrowdStrike: We stop breaches.

Qualifying organizations can gain full access to Falcon Prevent™ by starting a free trial.

Learn more: www.crowdstrike.com/security-solutions/government-public-sector/

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CROWDSTRIKE FALCON: THE NEW STANDARD IN ENDPOINT PROTECTION

ENDPOINT SECURITY BASED ON A SIMPLE, YET POWERFUL APPROACH



The CrowdStrike Falcon lightweight agent and powerful cloud work seamlessly to deliver real-time protection and visibility — yes, even when the agent is not connected to the internet. CrowdStrike Falcon provides robust threat prevention, leveraging artificial intelligence (AI) and machine learning (ML) with advanced detection and response, and integrated threat intelligence — all through a highly intuitive management console.

WHY CROWDSTRIKE FALCON?

COMPLETE PROTECTION

Immediate and effective prevention and detection against all types of attacks — both malware and malware-free — regardless of whether you are online or offline

UNRIVALED VISIBILITY

A "DVR" for your endpoint — nothing is missed — discover and investigate current and historic endpoint activity in seconds

ULTIMATE EASE OF USE

One cloud-delivered platform that's easy to deploy, configure and maintain — all using a single, lightweight agent



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