Defense Unicorns



A PRACTICAL GUIDE FOR MISSION TEAMS

# DISCOVERY AND FRAMING FOR MISSION SOFTWARE CHALLENGES

A focused way to understand the mission problem, examine the current environment, and define credible paths forward



## EXECUTIVE SUMMARY

Complex software challenges in defense environments rarely arrive as complete technical requirements. A mission team may know that an operational task is slow, difficult to sustain, or constrained by disconnected systems, while the reasons behind the problem remain distributed across users, processes, architecture, security, and organizational responsibilities.

Defense Unicorns' Discovery & Framing (D&F) Workshop is a focused, collaborative engagement that helps mission teams understand those conditions before they commit to a solution. Through stakeholder interviews, technical working sessions, and current-state analysis, the team clarifies the desired outcome, identifies root causes and constraints, and makes the technical connections needed to compare practical ways to meet the mission need.

The engagement gives mission owners a shared problem definition and a tailored set of findings and recommendations. It can inform technical planning, internal alignment, acquisition discussions, and follow-on scoping. It can also show that Defense Unicorns is not the right fit, that another route should be considered, or that more discovery is needed.

## WHY BEGIN WITH THE MISSION NEED

When a challenge is framed too early as a specific product, platform, or architecture requirement, teams can miss the underlying conditions that determine whether a solution will work. Operators may describe a workflow differently from the way it appears in process documentation. Engineering and cybersecurity teams may be working from different assumptions. Existing systems, funding, timelines, authorization needs, or partner responsibilities may limit the options available.

D&F creates a structured opportunity to bring those perspectives together. The first task is to understand what the mission needs to accomplish and what happens today. Only then does the team examine technical approaches and their tradeoffs. This sequence helps the mission owner make decisions with a clearer view of the problem, the constraints, and the work that a viable path may require.



## WHAT A DISCOVERY AND FRAMING WORKSHOP DOES

A D&F Workshop is grounded in user-centered design. It considers the people, processes, systems, and operational conditions around the mission, then connects what the team learns to possible solution paths. The engagement is designed to:

- Clarify the mission outcome and how the organization will recognize success.
- Understand current workflows, systems, architecture, and operational constraints.
- Separate visible symptoms from underlying causes.
- Surface technical, security, organizational, acquisition, schedule, and resource dependencies.
- Compare practical solution paths and the tradeoffs associated with them.

The work is more than a requirements call, product demonstration, or general technical discussion. It tests assumptions, looks for differences in how stakeholders understand the challenge, and builds a specific problem statement that can guide what happens next.

## THE FIVE-STEP D&F PROCESS

Each engagement is tailored to the mission area, participants, and available information. A standard D&F follows five connected steps.




### 1. Align on the Mission Need

Defense Unicorns works with the customer point of contact to establish the initial objective, identify relevant participants, and understand the broader operational and organizational context. When useful, the team reviews materials in advance, such as architecture diagrams, process documentation, security requirements, technical plans, existing assessments, and descriptions of current systems.

This alignment gives the engagement a clear scope and helps identify which perspectives should be represented in discovery.

### 2. Discover the Current State

Focused interviews and working sessions help establish how the environment works in practice, including workarounds and informal responsibilities that may not appear in documentation. Depending on the mission, participants may include mission and program leaders, operators and end users, software and platform teams, infrastructure teams, cybersecurity and authorization stakeholders, acquisition or resource-management personnel, and partners who operate or sustain the environment.

### 3. Identify Root Causes and Constraints

The team synthesizes what it heard across participants to identify recurring pain points, dependencies, gaps, and conflicting assumptions. Comparing these perspectives helps distinguish the underlying problem from its visible symptoms. It can also reveal that groups have different views of the priority, desired outcome, or conditions for success.

### 4. Frame Potential Paths Forward

With the problem better understood, the team connects the mission need to potential technical approaches. It considers the tradeoffs, dependencies, risks, and organizational changes associated with each path. The purpose is to help the mission team understand its options before choosing a direction. Where appropriate, Defense Unicorns explains how its products, engineering capabilities, or delivery experience could contribute. The assessment also considers where Defense Unicorns may not provide meaningful value.

### 5. Align on Findings and Next Steps

The engagement concludes with an outbrief for mission stakeholders and leadership. Defense Unicorns then develops a tailored, shareable artifact that captures the findings, frames the problem, and recommends next steps. The artifact can support internal alignment, technical planning, acquisition discussions, follow-on scoping, or a decision to pursue further discovery.

## WHAT TO EXPECT



### BEFORE THE ENGAGEMENT

The mission team and Defense Unicorns identify a primary point of contact, agree on the mission area to explore, and select a representative cross-section of stakeholders. A typical D&F benefits from at least four participants representing different mission, technical, operational, security, or leadership perspectives. Defense Unicorns may request background materials so the working sessions can focus on the most important questions.



### DURING THE ENGAGEMENT

A typical D&F Workshop takes place over two focused days. The structure can be adapted to mission needs. In-person sessions are generally most effective, though virtual sessions can be used when necessary. Mission teams should expect candid interviews, current-state and architecture discussions, and questions about outcomes, users, constraints, security, funding, timelines, and organizational responsibilities.

The sessions are collaborative rather than scripted product presentations. Participants should be prepared to describe what actually happens today, including workarounds, bottlenecks, unsuccessful approaches, and areas where stakeholders disagree. A small Defense Unicorns team brings complementary mission, technical, architecture, and software-delivery experience.



### AFTER THE ENGAGEMENT

Defense Unicorns provides a tailored, shareable artifact. Depending on the mission owner's needs, it may be a concise decision document, a more detailed report, or an executive-level summary for internal advocacy. The artifact generally captures:

- Mission context and desired outcomes
- A summary of the current environment
- Key findings and the root problem or problems identified
- Important constraints, dependencies, and risks
- Potential solution paths or a recommended approach
- Areas where Defense Unicorns may be able to help
- Recommended next steps



## HOW MISSION TEAMS USE THE FINDINGS

A D&F Workshop gives the mission owner a stronger basis for deciding what to do next. The findings can help teams align around a shared problem, determine which questions still need answers, compare technical approaches, and prepare for planning or acquisition conversations. The output is tailored to the audience and decision at hand; it is not a promise that one product, architecture, or follow-on effort will be selected.

The engagement may confirm that Defense Unicorns is a strong fit, identify a different route to the desired outcome, or show that additional discovery is needed. In each case, the mission team gains a clearer view of the problem and the available next steps.

## COST AND REQUEST PROCESS

Defense Unicorns provides Discovery & Framing engagements at no cost to the organization. The organization's investment is the time its mission stakeholders spend participating.

Mission owners can request a D&F through the Discovery & Framing request form on: defenseunicorns.com. After receiving a request, the Defense Unicorns team will follow up to begin scoping and planning the engagement. The call to action is simple: schedule your workshop.

## A CLEARER BASIS FOR THE NEXT DECISION

A mission software challenge deserves to be understood in its operational context before a solution is chosen. D&F gives mission owners and the teams around them a focused way to examine the current state, identify the causes and constraints that matter, and understand credible technical paths forward. The result is a shared problem definition and a practical foundation for the next decision.

**SCHEDULE YOUR D&F WORKSHOP**
**LEARN MORE: DEFENSEUNICORNS.COM**

## ABOUT US

Defense Unicorns is a veteran-owned defense technology company founded in 2021 by Rob Slaughter, Jeff McCoy, and Andrew Greene to make software a strategic deterrent for the U.S. Department of War. The company builds open-source, airgap-native technologies that enable the secure development, delivery, and sustainment of mission software across cloud, on-premises, and tactical edge environments. Defense Unicorns' technology is trusted by the operators of some of the most critical systems in the world, including the U.S. Navy, Army, Air Force, and Space Force.
Learn more at: https://defenseunicorns.com.





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