
OVERCOME AGILE TALENT SHORTAGES IN DOD PROGRAMS

**Why the Pentagon Can't Afford to
Wait on Agile Transformation**

A CCS Global Tech Whitepaper



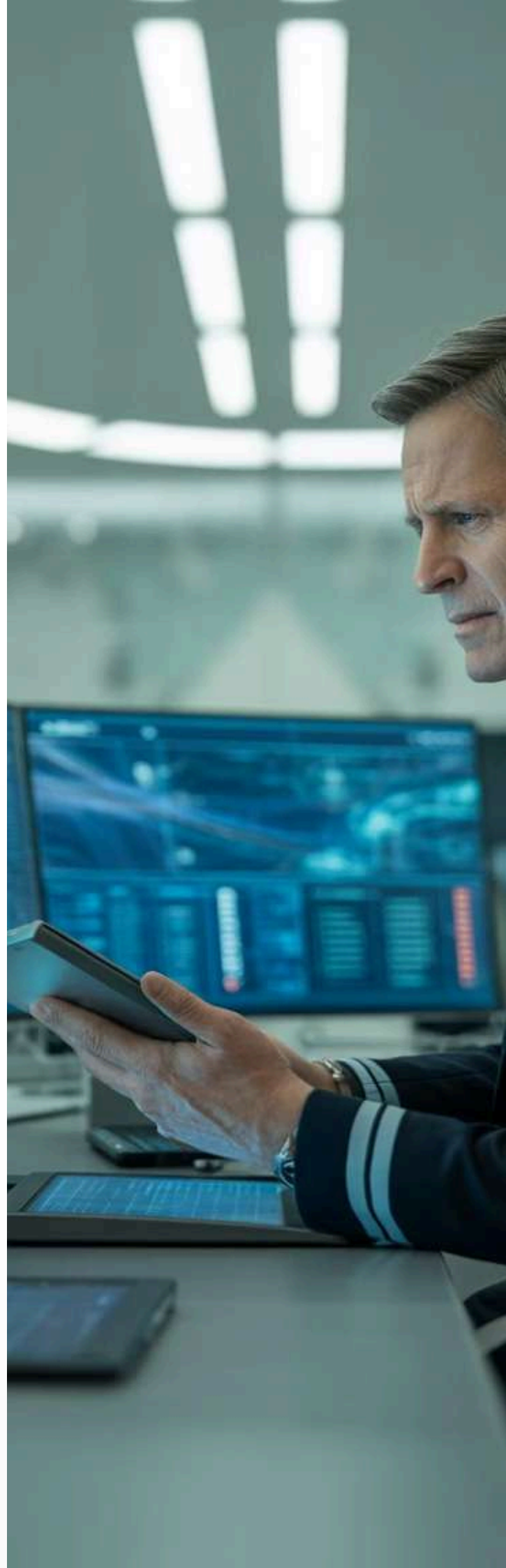
The Reality Check

Here's what keeps program managers up at night: You know Agile is the answer. You've read the directives, sat through the briefings, and understand that waterfall development belongs in the history books. But when you try to staff your program with people who actually know how to do Agile—not just talk about it—the talent pool dries up fast.

You're not imagining things. The numbers tell a tough story.

The Department of Defense is in the middle of a fundamental shift in how it builds software and manages programs. This isn't a nice-to-have anymore. It's how we stay ahead of adversaries who aren't waiting for us to figure this out. But we've got a problem: **the people who know how to execute Agile in a defense environment are in short supply, and programs are paying the price.**

This whitepaper cuts through the noise to show you exactly what's happening, what it's costing us, and how to fix it. We're talking about real solutions—fast-track training, smart partnerships with organizations like CCS Learning Academy, and policy changes that actually make sense for the mission.



Why This Matters Right Now

The Mission Impact

Software now drives nearly everything the DoD does. From weapons systems to command and control to business operations, we're running on code. The Under Secretary of the Army put it bluntly in March 2024: **"Our traditional approach to software is no longer meeting the demands of our warfighters."**

The old way—spending 10+ years to deliver a system that's obsolete before it's fielded—doesn't work when threats evolve by the month. Agile development is supposed to get capabilities to the warfighter in under a year, with continuous updates based on real feedback from the field.

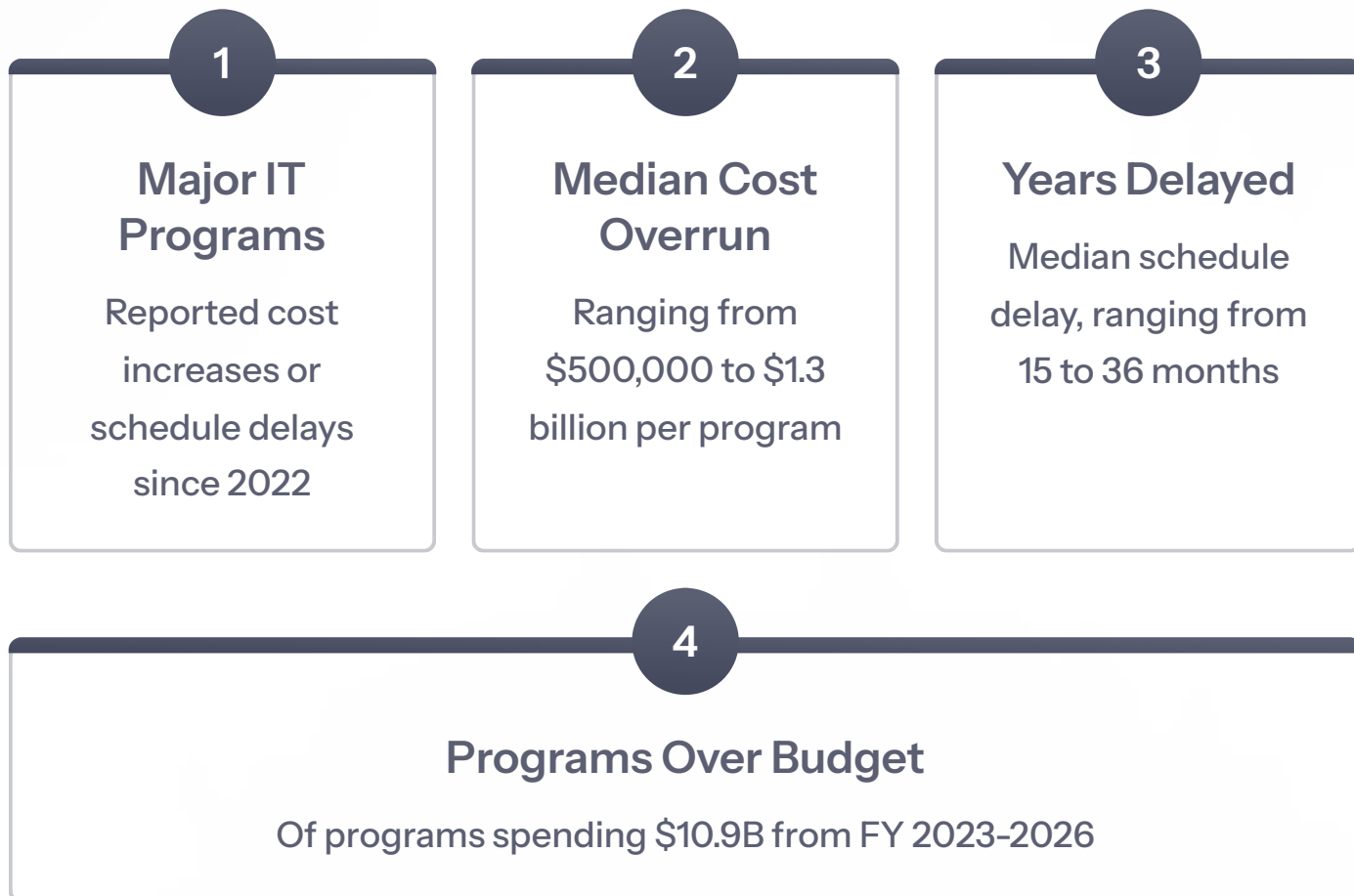
But here's the catch: Agile only works if you have people who know how to do it. And right now, we don't have enough of them.



The Numbers That Tell the Story

Let's look at what's actually happening to DoD programs:

From the Government Accountability Office's latest assessments:



One system—the Maintenance Repair and Overhaul System—saw costs jump by **\$815.5 million**. A financial management system that was supposed to improve accountability got delayed by **48 months**. That's four years.

These aren't just numbers on a spreadsheet. Every month of delay means capabilities our forces need aren't getting to them. Every dollar over budget is a dollar that could have gone to another critical program.

What's Really Going On

The Talent Problem

The DoD has a **24% shortfall** in its civilian cyber workforce. Even after improvement efforts, it's still running at a **16% deficit**. When you layer on the need for Agile expertise—which requires a completely different mindset from traditional program management—the shortage gets worse.

Here's what program offices are dealing with:

Hard-to-Fill Roles:

Agile Coaches

Who understand defense acquisition regulations

Product Owners

Who can balance mission needs with technical constraints

Scrum Masters

Who've worked in classified environments

DevSecOps Engineers

With security clearances

Software Developers

Who understand continuous delivery in DoD systems



The Shocking Reality

According to a GAO review of 53 software-intensive programs, **most reported ongoing challenges with hiring and retaining the software workforce.** The DoD stood up a software expertise cadre, but as of March 2024, it consisted of **one federal employee** with limited help.

One person.

For the entire Department.



Why Traditional Hiring Doesn't Work

You can't just post a job on USAJobs and wait. The private sector is competing for the same talent, and they're offering:



Faster Hiring

Weeks, not months



Competitive Salaries

Without GS scale constraints



Modern Environments

Latest development tools



Less Bureaucracy

Streamlined processes

Meanwhile, DoD acquisition programs are asking candidates to wait 8-15 months for a security clearance, navigate 1970s-era hiring systems, and work with procurement processes built for hardware, not software.

By the time you clear someone, they've taken another job.



The Real Cost of Delay

What Programs Are Losing

McKinsey looked at the aerospace and defense sector—which includes DoD—and found the talent shortage creates three types of gaps:

Skills Gap

People lack the technical know-how

Will Gap

Employees aren't engaged because they're fighting the system

Time Gap

People spend hours on low-value activities instead of delivering capability

The financial impact? McKinsey estimated it costs up to **\$300 million annually** in cost avoidance and lost productivity.

But the bigger cost is mission risk. When programs can't staff up with Agile talent:

- Development slows to a crawl
- Requirements get frozen instead of evolving with threats
- User feedback loops break down
- Technical debt piles up
- Programs revert to waterfall under a thin Agile veneer



The GAO's Pattern

Look at what happens when programs try to use Agile without the right people:

01	02	03
10 out of 21 IT programs	4 of these 10 programs	Without proper tracking
Are developing software using Agile approaches	Weren't using the metrics or management tools required for Agile	Of customer satisfaction and development progress, they're flying blind

The pattern repeats across weapon systems too. The GAO found that **even programs on the Middle Tier Acquisition (MTA) pathway**—designed specifically for speed—face delays when they don't have people who understand rapid development.

Five MTA programs reported delays to key milestones. Programs entered the "rapid" pathway with low technology maturity and ended up spending years in development. The GAO noted that **none were ready for production** when the MTA effort ended.

That's not rapid. That's just relabeling the problem.



Why It's So Hard

The Culture Clash

Agile runs counter to how defense acquisition traditionally works. Every successful DoD Agile project we've studied confirms the same thing: **adopting Agile requires a mindset change** across the entire program office and the stakeholders they work with.

Traditional DoD Culture:

- Requirements are fixed upfront and documented in detail
- Oversight happens at formal milestone reviews
- Success means executing to the original plan
- Risk is managed by adding process and reviews
- Teams are specialized by function
- Users see the product at the end

Agile Culture:

- Requirements evolve based on user feedback
- Oversight is continuous through working software demos
- Success means delivering value to users
- Risk is managed by delivering in small increments
- Teams are cross-functional
- Users are involved throughout development



The Culture Challenge

Making this shift when you're embedded in a traditional acquisition organization is like trying to play basketball while everyone else is playing football. You're using different rules, different metrics, and different definitions of success.

"The greatest challenge is performing the champion role while adopting Agile development."

— DoD Program Manager

Translation: How do you convince senior leaders that "done" means working software every two weeks, not a successfully completed Preliminary Design Review?



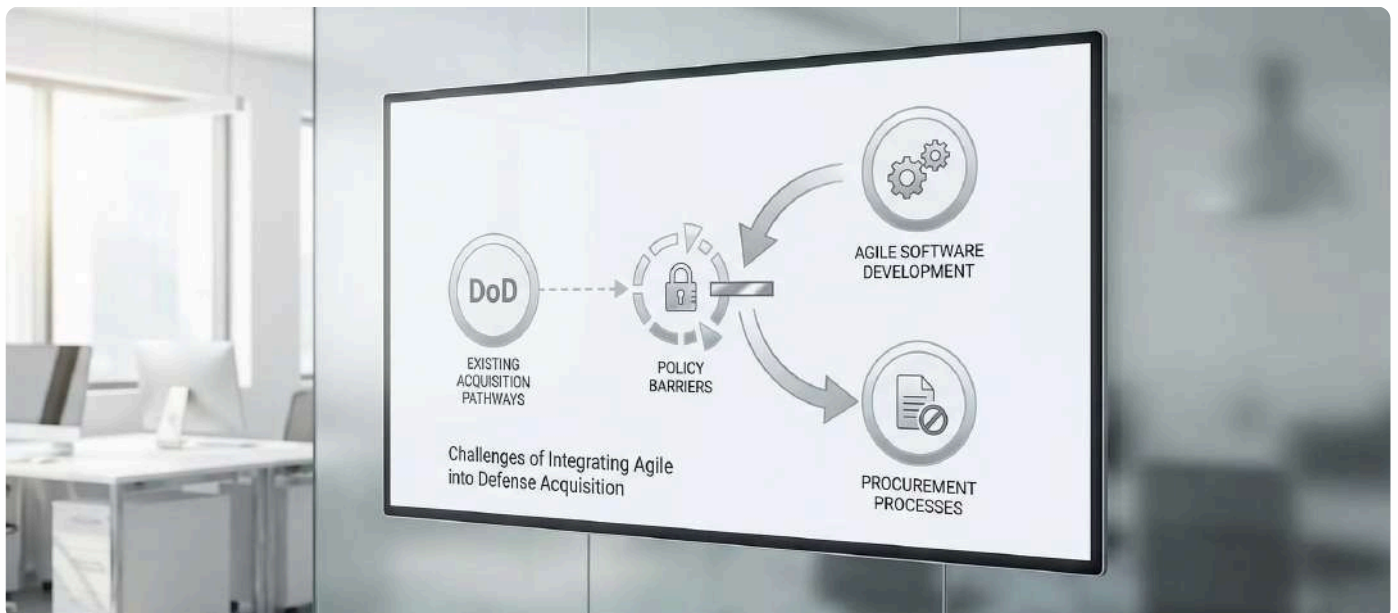
The Policy Barriers

The DoD has made progress. In 2020, it established six acquisition pathways, including one specifically for software. The software pathway requires Agile practices. But here's the problem: **most weapon programs developing software aren't on the software pathway.** They're on other pathways with requirements processes that don't incorporate Agile principles.

❏ The GAO was direct about it: **"By not incorporating Agile principles into requirements processes, these programs risk developing capabilities that may not reflect changing user needs or threats."**

Even when policy supports Agile, procurement remains a challenge. How do you write a contract for Agile development when your contracting regulations were designed for buying hardware with fixed specifications? How do you do continuous deployment when the Authority to Operate (ATO) process takes months?

The Army announced a comprehensive new software policy in March 2024 specifically to address these barriers. But policy changes take time to filter through the system, and in the meantime, programs are stuck.



What Works: The Path Forward

Strategy 1: Fast-Track Training That Actually Delivers

Traditional Agile training doesn't work for DoD. A two-day Scrum Master class might give someone a certification, but it doesn't prepare them for the reality of implementing Agile within defense acquisition constraints.

What DoD programs need:

- **DoD-Specific Agile Training**

Training programs customized for defense context, covering:

- How to apply DoD Instruction 5000.87 (Agile Software Development)
- Working with Defense Federal Acquisition Regulation Supplement (DFARS)
- Agile in classified environments
- DevSecOps for defense systems
- Reconciling Agile with traditional milestone reviews

CCS Learning Academy delivers exactly this kind of training—programs built specifically for federal and defense professionals who need to make Agile work within government constraints, not in a Silicon Valley startup.

- **Hands-On, Mission-Focused Approach**

Book learning doesn't cut it. Effective training includes:

- Real scenarios from defense programs
- Practice with actual DoD acquisition documents
- Exercises built around mission-critical systems
- Integration with security requirements

- **Clear Career Pathways**

When the DoD invests in Agile training and creates recognized advancement opportunities, it becomes a more attractive employer for software talent. People want to know their skills will be valued and there's room to grow.

Strategy 2: Modernize Policy to Match Reality

The DoD needs to finish what it started. The GAO made three key recommendations that still need to be fully implemented:

01	02	03
<p>Incorporate Agile Principles Across All Acquisition Pathways</p> <p>Not just the software pathway. If a weapon program has software (and they all do), the requirements process needs to support iterative development and user engagement.</p>	<p>Update Oversight to Match Agile Development</p> <p>Move away from one-time milestone reviews toward continuous assessment based on working software and user feedback. The metrics should be about delivered value, not process compliance.</p>	<p>Enable Modern Engineering Tools</p> <p>Agile relies on automation, continuous integration, and collaborative development platforms. The DoD still hasn't developed a plan or identified resources to enable these tools across all programs.</p>

Contracting Reform

The Army's new Digital Capabilities Contracting Center of Excellence at Aberdeen Proving Ground is a step in the right direction. Programs need contract vehicles that support:

- Modular contracting for incremental delivery
- Flexible scope as requirements evolve
- Outcome-based metrics instead of detailed specifications
- Rapid procurement timelines

Strategy 3: Strategic Partnerships with Specialized Organizations

The magnitude of the DoD's Agile transformation is massive. No single organization can do it alone. This is where partnerships with specialized training and staffing organizations become critical.

What CCS Global Tech and CCS Learning Academy Bring:

- **Specialized DoD-Centric Agile Training**

Not generic Agile courses, but programs designed specifically for:

- Defense contractors navigating DoD acquisition regulations
- Government program managers implementing Agile in traditional organizations
- Cleared personnel working in classified environments
- Teams integrating Agile with existing DoD processes

- **Rapid Workforce Development**

Instead of waiting years to organically grow Agile expertise, partnerships can accelerate the timeline:

- Turn traditional program managers into Agile leaders in months, not years
- Upskill existing staff rather than starting from scratch with outside hires
- Create internal champions who understand both the mission and the methodology

- **Talent Pipeline**

Federal staffing partners maintain networks of cleared professionals with Agile experience. When a program needs someone fast, they can tap into that pipeline instead of starting a search that takes six months.

- **Continuous Support**

Agile transformation isn't a one-time event. It requires ongoing coaching, mentoring, and adjustment. Strategic partners provide that sustained support as programs work through the challenges of cultural change.

Strategy 4: Hire Smarter, Not Just More

Given the constraints on federal hiring, programs need to be strategic about how they bring in Agile talent:

- **Hybrid Teams**

Combine government employees, contractors, and surge support:

- Government Product Owners who understand the mission
- Contractor Scrum Masters and coaches who've done this before
- Development teams that blend government and industry expertise

- **Prioritize Adaptability**

Look for people who can learn and adapt, not just those with specific certifications. Someone with strong technical skills and the right mindset can become an effective Agile practitioner faster than someone with certifications but no experience in complex environments.

- **Invest in Your Current Workforce**

Your existing program managers, engineers, and analysts already understand the mission and the constraints. Training them in Agile is often more effective than hiring Agile experts who have to learn defense acquisition.

- **Create a Culture That Retains Talent**

The DoD loses people not just because of salary, but because of frustration with bureaucracy and lack of modern tools. Programs that successfully implement Agile—with empowered teams, frequent delivery, and visible impact—find it easier to keep good people.

The Framework: Making It Happen

Phase 1: Assessment and Planning (Months 1-2)

Understand Your Starting Point

- Map current program structure and processes
- Identify which roles need Agile expertise most urgently
- Assess existing team capabilities and gaps
- Review contract vehicles and authorities available

Define Success Metrics

- Delivery frequency (time from idea to fielded capability)
- User satisfaction with delivered software
- Percentage of planned capabilities delivered
- Technical debt trends
- Team morale and retention

Build Your Coalition

- Identify internal champions
- Engage with contracting and legal early
- Brief senior stakeholders on the transformation approach
- Establish partnerships with training organizations



Phase 2: Foundation Building (Months 3-6)

Launch Training Programs

- Start with leadership training (executives and program managers)
- Train core team members in Agile practices
- Provide specialized training for Product Owners and Scrum Masters
- Ensure contracting and oversight staff understand Agile

Pilot Projects

- Select 1-2 efforts to pilot Agile approaches
- Staff pilots with a mix of trained internal staff and experienced contractors
- Document lessons learned in real-time
- Use successes to build momentum

Policy and Process Adaptation

- Work with contracting to develop Agile-friendly vehicles
- Adjust oversight approach to focus on demonstrations and metrics
- Establish streamlined ATO process for continuous deployment
- Create tailored requirements documents that support iterative development

Phase 3: Scale and Sustain (Months 7-12)

1

Expand Training

- Train additional teams based on pilot lessons
- Develop internal coaches and mentors
- Create communities of practice across the program

2

Institutionalize Practices

- Update program documentation to reflect Agile approach
- Integrate Agile metrics into regular program reviews
- Adjust contract management processes
- Establish continuous improvement mechanisms

3

Build Partnerships

- Formalize relationships with training providers like CCS Learning Academy
- Establish staffing agreements with federal staffing partners
- Create knowledge-sharing arrangements with other DoD programs
- Participate in DoD-wide Agile communities

Phase 4: Continuous Improvement (Ongoing)

Measure and Adapt

- Track delivery metrics and user satisfaction
- Conduct regular retrospectives at team and program level
- Adjust practices based on what's working
- Share lessons learned across the organization



Sustain the Workforce

- Provide ongoing training and certification opportunities
- Create clear career paths for Agile roles
- Maintain partnerships with training organizations
- Foster culture that attracts and retains Agile talent

Stay Current

- Monitor evolving Agile practices and tools
- Adapt to policy and regulatory changes
- Invest in modern development infrastructure
- Participate in industry and government forums

What Success Looks Like

Real Results from DoD Programs

We're not talking theory. Programs across DoD are making this work:

01

Air Force Research Laboratory

Their Agile Space Operations Software branch implemented continuous ATO. The technical director said they're now "able to get code into the hands of operators on their real systems in a matter of months from when we start, rather than years."

02

Marine Corps Community Services

By adopting a risk-based security approach instead of rigid compliance, they enabled developers to identify and fix problems in real-time instead of waiting for formal reviews.

Army Modernization

The Army's comprehensive new software policy, announced in March 2024, is fundamentally reshaping how they develop and acquire software. It includes:

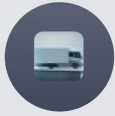
- Changing how requirements are written
- New acquisition strategies and buying models
- Reformed request for proposals and contract processes
- Continuous development instead of transitions to "sustainment"
- Establishing a Digital Capabilities Contracting Center of Excellence
- Creating a Software Management and Response Team of experts

These programs succeeded because they combined three elements:

1. **Training** - People who understood Agile in defense context
2. **Policy Reform** - Processes that supported rather than hindered Agile
3. **Leadership Commitment** - Champions who cleared obstacles

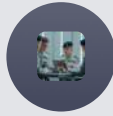
The Multiplier Effect

When programs successfully implement Agile with properly trained teams:



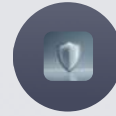
Faster Delivery

Months instead of years to first capability, with continuous improvements after that.



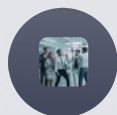
Better Alignment with Needs

Regular user feedback means you're building what's actually needed, not what someone thought would be needed five years ago.



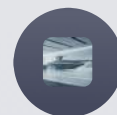
Lower Risk

Small, frequent deliveries mean problems surface early when they're cheap to fix, not late when they're catastrophic.



Higher Retention

People want to work on programs that deliver results. Success breeds success.



Mission Advantage

While your program is delivering its third or fourth increment of capability, competitors are still working on their requirements document.

The Bottom Line

The DoD's shift to Agile isn't optional. It's the only way to keep pace with threats that don't wait for us to complete decade-long development cycles. But Agile is not just a process change—it's a workforce transformation. And right now, we don't have enough people with the right skills to make it work at scale.

The talent shortage is real, the costs are measurable, and the mission impact is serious. Programs are burning money and time because they can't staff up with people who know how to execute Agile in a defense environment.

But there's a clear path forward:

• **1**

Fast-track training that's built for DoD realities, not Silicon Valley

• **2**

Modernize policy to match how we actually need to work

• **3**

Strategic partnerships with CCS Global Tech and CCS Learning Academy that specialize in federal staffing and training

The GAO has documented the problems. The military services have acknowledged the urgency. The policy framework is starting to catch up. What's missing is execution at scale—taking the successful pilot programs and replicating them across DoD.

The good news: You don't have to figure this out alone. Organizations like CCS Global Tech have spent years building training programs and talent pipelines specifically for defense programs. We understand the clearance requirements, the regulatory constraints, and the mission imperatives.

We know how to train your people, help you find the right talent when you need to hire, and provide the ongoing support that makes Agile transformations stick.

The question isn't whether to transform. It's whether you'll do it fast enough to stay ahead of the mission need.

Take the Next Step

For Program Managers and Acquisition Leaders:

If you're struggling to find Agile talent or your current team needs to skill up fast, CCS Learning Academy offers DoD-specific Agile training that gets your people mission-ready, not just certified.

Our programs cover:

- Agile Software Development in DoD context
- Product Owner training for defense programs
- Scrum Master certification with federal focus
- DevSecOps for classified environments
- Agile contracting and oversight

For Senior Leaders:

If you're overseeing multiple programs facing similar talent challenges, CCS Global Tech can help you develop an enterprise approach to building Agile capability across your organization.

We provide:

- Workforce assessment and gap analysis
- Customized training roadmaps
- Talent acquisition support
- Ongoing coaching and mentoring
- Community of practice facilitation



Let's talk about how to turn your Agile talent shortage into a competitive advantage.

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About CCS Global Tech: We specialize in federal staffing solutions and workforce development for defense and intelligence programs. Our mission is to bridge the gap between mission requirements and workforce capability through strategic talent acquisition, specialized training, and ongoing support.

About CCS Learning Academy: We provide DoD-specific Agile training and professional development programs designed for federal employees and defense contractors who need to implement modern software practices within government constraints.

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The findings and recommendations in this whitepaper are based on publicly available information and the authors' professional experience supporting Department of Defense programs. They do not represent official DoD policy or positions.

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