



Hiring and Managing a Cyber Security Workforce: What Federal Managers Need to Know

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A service-disabled Veteran-owned small business (SDVOSB)

The Context

- The United States is facing unprecedented cyber security threats from abroad and domestically
- Cyber security expertise is in great and growing demand across our economy
- Cyber security professionals are in great demand across government
- Federal cyber security workforce is difficult to recruit and retain

Cyber Security Threats

- Former Secretary of Defense Panetta, on 10/12/12, warned:
- “We are facing the threat of a new arena in warfare that could be every bit as destructive as 9/11 — the American people need to know that. We can’t hide this from the American people any more than we should have hidden the terrorism-attack threat from the American people.”
- “The three potential adversaries out there that are developing the greatest capabilities are Russia, China, Iran.”
- “Out of a scale of 10, we’re probably 8 [in cyber-war skills. But potential foes] are moving up on the scale – probably the others are about a 3, somewhere in that vicinity, but they’re beginning to move up.”

Cyber Security Demand across society

- Annual cyber spending was about \$12 billion in 2012
- Demand is greatest in market sectors involved in:
 - Finance
 - Transportation
 - Utilities
 - Communications

Cyber security demand in government

- “I think we have to develop the ability to conduct counter-operations against a country we know, or anticipate, that they’re going to launch that kind of attack. So we have to have both defensive and offensive capabilities.” -- Secretary Panetta
- Civilian agencies also need cyber expertise to:
 - Protect customer and taxpayer information
 - Protect employee information
 - Protect mission capability
 - Comply with OMB requirements

Federal Cyber workforce challenges

- Competing with the private sector for talent
- Bidding wars against other federal agencies for talent
- Hiring people quickly to address a present, growing, and rapidly evolving threat
- Managing attrition

DHS Advisory Council Task Force on Cyber Skills

- Adopt and maintain an authoritative list of mission-critical cybersecurity jobs, and modify that list in the face of changing threats and technologies.
- Develop training scenarios that allow DHS to properly evaluate cybersecurity talent for each of the mission-critical tasks.
- Adopt a sustainable model for assessing the competency and progress of existing and future cybersecurity talent.
- Establish a department-level infrastructure that oversees the development of the cybersecurity workforce.
- Streamline the hiring process and make government cybersecurity jobs more enticing by emphasizing service, skills and growth potential.
- Establish a two-year, community-college-based program that identifies and trains large numbers of students for in-demand cybersecurity jobs.

DHS Advisory Council Task Force on Cyber Skills

- Raise the eligibility criteria for schools that participate in the Centers for Academic Excellence and Scholarship for Service programs to ensure that graduates are better prepared
- Launch a major initiative to enhance the opportunities for U.S. veterans to be trained for and hired in cybersecurity jobs.
- Use the large majority of DHS direct hiring authority to bring on at least 600 workers with critical cyber skills .
- Specify the skills and level of proficiency needed in all cybersecurity-related contracting.
- Establish a pilot DHS CyberReserve program that ensures former DHS cybersecurity workers and other cyber professionals outside of government are known and available to DHS in times of need.

Competing with the private sector for talent

- **Sell the mission!**
 - Protecting the US nuclear arsenal or the New York City water supply is a lot more exciting than protecting Wells Fargo executives
 - Where else can you go head-to-head against the smartest people in rival countries?
- **Sell the experience!**
 - After a few years as a fed, you will be wanted everywhere in the private sector

Competing with other federal agencies

- Work together to grow the pool of applicants
- Develop your own agency's talent pipeline so graduates are predisposed to come to your agency
- Play the game:
 - Direct Hire Authority
 - Hiring bonuses
 - Student loan forgiveness
 - Retention bonuses
 - Career ladders
 - Intellectual challenge
 - Recognition

Managing Attrition

- Pay attention to onboarding practices
- Pay attention to supervisory skills
- Invest time, effort, and money in employee development
- Use retired annuitants
 - Knowledge Transfer
 - Inexpensive
- Address succession planning
- Use new statutory authority for phased retirement to facilitate knowledge transfer

Questions?

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