Success Strategies for Cybersecurity Hiring for Human Resources and Hiring Professionals

The shortage of cybersecurity talent can make it challenging for organizations and Human Resource professionals to hire and retain a skilled cyber workforce. Additionally, organizations need to build a human capital pipeline that brings new candidates into the field, and increases representation from under-represented populations. Adoption of one or more of the following strategic concepts may allow a hiring manager to identify gaps in their cybersecurity workforce and develop career pathways, while reducing "time-to-hire" and improving retention.

ASSESS THE CURRENT CYBERSECURITY ENVIRONMENT

Every individual has a work role in an organization's cybersecurity workforce. Organizations can use the National Initiative for Cybersecurity Education (NICE) guidebook, Cybersecurity is Everyone's Job to identify work roles by business function, defining each role and function as a part of the cybersecurity workforce.

Resources, like the NICE Workforce Framework for Cybersecurity (the NICE Framework), the Department of Labor's O*Net tool and the Cybersecurity and Infrastructure Security Agency (CISA) NICCS website can help evaluate workforce needs and improve the overall understanding of cybersecurity work in an organization.

Create a demographic profile of the cybersecurity workforce and determine if staffing is designed to support diversity objectives. Assess the time it takes to hire new personnel (time-to-hire) and annual retention rates. Evaluate salaries, using tools like the Department of Labor BLS Wage data by Area and Occupation, against competitive data for the local job market and national averages.

REVIEW JOB REQUIREMENTS

Using the NICE Framework, describe the necessary Tasks, and related Knowledge and Skills to build job descriptions aligned to business needs. Organizations are re-evaluating requirements such as college degrees, advanced certifications and experience requirements that might unnecessarily discourage otherwise qualified talent from applying or being considered. The U.S. Bureau of Labor Statistics uses a system to assign categories for entry-level education, work experience in a related occupation, and typical on-the-job training to each occupation.

STANDARDIZE CYBERSECURITY JOB TITLES

Cyber Threat Hunter? Information Security Analyst? Job titles are different across industry, academia, and government. The NICE Framework and the Department of Labor's O*Net tool can help provide some examples; review the Cyberseek website to see other common titles in use.

REMOVE HIDDEN BIAS IN POSITION DESCRIPTIONS AND HIRING

Seek to remove language from job advertising and position descriptions that may discourage diverse candidates from applying for open positions, i.e. the use of masculine gendered nouns, or references to military-style approaches. This can be difficult to recognize without guidance from experts or the use of text-based tools that both spot biased or coded terminology and offer suggestions to use in their place.

SHRM.org identifies masking strategies and blind interview steps to strip identifying information from resumes and job applications before sharing with the hiring teams. Invite a diverse team from across the organization to assist in panel-style reviews of candidates.

nist.gov/nice

BE Candidate Centric IN HIRING

Make the application process a candidate-centric experience. Consider posting information on the Career portion of the organization website that describes the steps in the hiring process, what interactions the candidate may expect to have, examples of interview questions per department or position. Ask for and include anonymized candidate feedback.

SCREEN FOR TALENT WITH APTITUDE OR SKILL ASSESSMENT TOOLS

Asking *Who, What, When, Where, Why* and *How* questions that relate to critical thinking skills, at the appropriate level can help candidates show analytical, interpretative, evaluation, problem-solving and communication skills.

INTERVIEWING CYBERSECURITY CANDIDATES

Finding the right candidate for cybersecurity positions can be a challenge. HR managers and IT professionals can work together to balance performance- based questions with education, skills and organizational culture assessments. Re-evaluate the importance of soft skills (such as verbal and written communication skills) in cybersecurity positions. Interviews should allow candidates to display soft skills as well as hard skills.

Finally, unicorns are rare – don't build job descriptions and interviews based on all-or-nothing criteria.

Resources

1. CyberSeek, www.cyberseek.org
2. ISC(2) Report, "Innovation Through Inclusion: The Multicultural Cybersecurity Workforce." https://www.isc2.org/Research/Cybersecurity-Diversity
3. NICE Guidebook, "Cybersecurity is Everyone's Job"; https://www.nist.gov/itl/applied-cybersecurity/nice/workforce-management-guidebook
4. U.S. Department of Labor's O*Net tool; https://www.onetonline.org/
5. Cybersecurity and Infrastructure Security (CISA)'s NICCS portal; https://niccs.us-cert.gov/workforce-development/cyber-security-workforce-framework
6. U.S. Department of Labor's BLS Wage Data; https://www.bls.gov/bls/blswage.htm
7. The Aspen Cybersecurity Group; https://www.aspeninstitute.org/team/aspen-cyber-group/ and their report, "Principles for Growing and Sustaining the Nation's Cybersecurity Workforce"; https://assets.aspeninstitute.org/content/uploads/2018/11/Aspen-Cybersecurity-Group-Principles-for-Growing-and-Sustaining-the-Nations-Cybersecurity-Workforce-1.pdf?_ga=2.34620580.422262154.1564753566-412768538.1560292992
8. U.S. Bureau of Labor Statistics; https://www.bls.gov/emp/documentation/education/tech.htm
9. NCWIT Checklist for Reducing Unconscious Bias in Job Descriptions/Advertisements; https://www.ncwit.org/resources/ncwit-checklist-reducing-unconscious-bias-job-descriptionsadvertisements
10. CyberSN blog: "Unconscious Bias in Cybersecurity Recruiting (and Advice to Fix It): https://www.cybersn.com/blog/unconscious-bias-in-cybersecurity-recruiting-and-advice-to-fix-it
11. SHRM article, "Can Blind Hiring Improve Workplace Diversity?"; https://www.shrm.org/hr-today/news/hr-magazine/0418/pages/can-blind-hiring-improve-workplace-diversity.aspx
12. Yello, "A Recruiter's Guide to Improving the Candidate Interview Experience," https://yello.co/blog/how-to-improve-candidate-interview-experience/
13. SHRM Behavior Competency Interviewing: https://www.shrm.org/resourcesandtools/hr-topics/behavioral-competencies/critical-evaluation/pages/behavioral-competencies-interview-questions.asp
14. SHRM Soft Skills: https://www.shrm.org/resourcesandtools/hr-topics/organizational-and-employee-development/pages/the-hard-truth-about-soft-skills.aspx
15. Forbes article, "Here's What's Really Behind the Security Skills Shortage," https://www.forbes.com/sites/forbestechcouncil/2019/08/28/heres-whats-really-behind-the-security-skills-shortage/#657570cf644a

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