Skill Acquisition in a Rapidly Evolving Workplace

Robin Lyons,
CISA, CIA
Is a technical research manager in ISACA's Knowledge and Research department. In that role, she contributes thought leadership by generating ideas and deliverables relevant to ISACA's constituents. She partners with Learning Solutions as a subject matter expert on audit and CSX-related projects. She also writes audit programs, narratives and blogs, as well as leads projects when any of these functions are co-sourced with external resources. Prior to joining ISACA®, Lyons was a Payment Card Industry (PCI) subject matter expert for a Fortune 200 corporation and the internal audit director for an institution of higher education.

The cybersecurity skills gap has been on the surface of employers' awareness for several years. The ability to meet security objectives given the skills gap is compounded by the moving target created by evolution in the workplace. While factors such as age or gender definitely contribute to the changing workplace, it is the rapid pace of evolution related to new technology that captures the attention of technologists looking to future proof their careers. As organizations adopt new technologies, a gap is created between the new skills required of security personnel and IT audit staff and the skills these practitioners hold.

In ISACA's *State of Cybersecurity 2018: Workforce Development*[1] survey, respondents indicated that the greatest hiring demand is expected at the technical security level for individual contributors, not the management or executive level [2] (**figure 1**). Of those responding, 77 percent indicated increased staffing needed at this level compared to 76 percent reporting no additional staffing required at the executive or C-suite level.
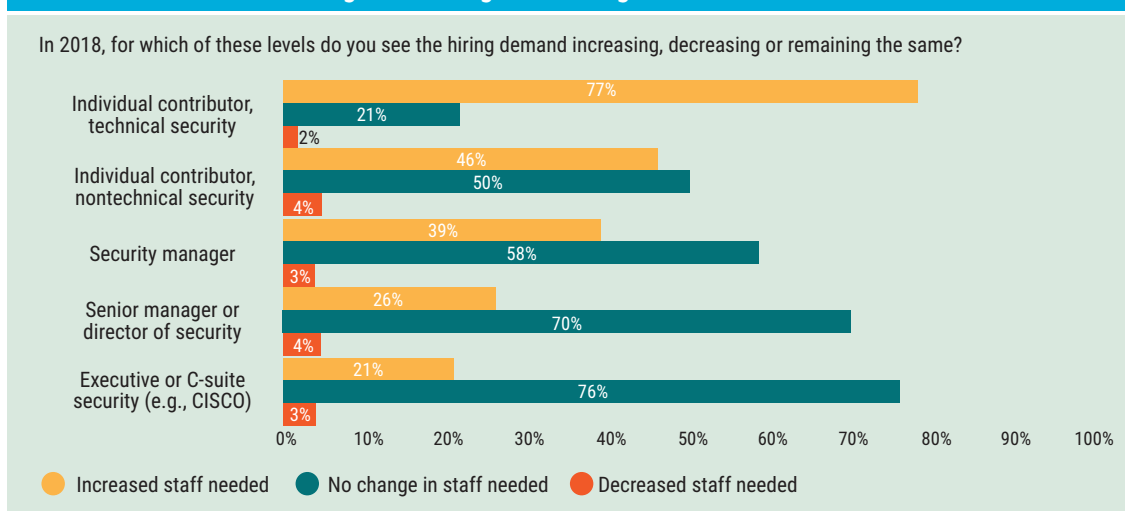
One of the key enterprise takeaways cited by the report is that "the increasing need for skilled security personnel validates investment in existing staff, including education, training, skill development and certification, particularly in technically relevant areas."[3] In looking to the future, a potential bottleneck in upward mobility may exist for those entering the field now. This could be attributable to increased competition for those higher-level positions as a larger group of practitioners seeks that next career progression. Also, trends toward automation may play a role in that potential bottleneck.[4] So, those practitioners looking to future proof their careers may explore the following options.

Balance Interpersonal Skills With Technical Skills

If technologists include acquisition or enhancement of interpersonal skills as part of their career planning, inclusion is more likely to be incidental rather than a skill set that is intentionally developed. After all, people tend to believe that they work collaboratively with others. Given workforce diversity in age, gender, national origin, technical background and other factors, collaboration is indeed a critical interpersonal skill; however, it is not the only interpersonal skill required to future proof a career in technology. Balancing interpersonal skills with their technical skills will serve technologists in their current roles and continue to serve them as their careers progress.

Figure 1—Hiring Demand Organizational Level

In 2018, for which of these levels do you see the hiring demand increasing, decreasing or remaining the same?

Level	Increased staff needed	No change in staff needed	Decreased staff needed
Individual contributor, technical security	77%	21%	2%
Individual contributor, nontechnical security	46%	50%	4%
Security manager	39%	58%	3%
Senior manager or director of security	26%	70%	4%
Executive or C-suite security (e.g., CISCO)	21%	76%	3%

Key Skill Acquisition

Although the greatest hiring demands are at the executive or C-suite level now, practitioners who aspire to positions at those levels should develop public speaking skills. At the executive level and beyond, speaking at board meetings and to internal and external audiences is expected. Public speaking skills can be learned through any number of groups dedicated to that skill and honed by volunteering to speak at meetings of professional associations such as ISACA®.

Strategically Develop Skills That Can Be Objectively Demonstrated

Given the rapid pace at which new technologies are adopted, it is impractical to be an expert in all things IT. As a result, the technologist benefits from taking a tactical approach to skill development. In their current positions, technologists should ensure alignment of technical skills with their organizations' strategic objectives. For example, if an organization has adopted a hybrid cloud strategy, a technologist should have a solid understanding of capabilities and challenges of public cloud vs. on-premise cloud solutions. Enhancing knowledge through selected readings or online tutorials may be ways to develop skills for these scenarios. Depending on the technologist's role, that may be sufficient.

Should the technologist want to be viewed as a subject matter expert by the organization, however, objective demonstration of skills may be a better path to take. Objectively demonstrating a skill can be achieved through practical work experience in the subject area. Alternatively, objective demonstration of skills can be shown through certifications; a certification demonstrates a skill set whereas a one-off course demonstrates proficiency. Practitioners should ensure that the certifications pursued are recognized and appreciated in their industries as well as by their organizations.

Having identified ways to develop skills in an evolving workplace, practitioners should leverage their organizations' existing platforms to document their skills. It is not uncommon for organizations' human resources departments to maintain profiles of their employees. The purpose of these platforms is to be informed as employees develop educationally by attaining degrees or expand their skills through new certifications. The idea is that as new internal opportunities requiring these degrees or skills arise, employees will be considered for those new opportunities.

Key Skill Acquisition

Ensure that skills can be objectively demonstrated.

Build and Maintain Partnerships Around Emerging Technologies

Leveraging participation in professional organizations and e-publications from groups that report on emerging technologies are ways for practitioners to learn about new technologies. Awareness of new technologies is critical as it allows practitioners to consider if there is a suitable fit for the technology in their organizations. If so, the practitioner has lead time to consider any challenges should the technology be considered and develop possible solutions to those challenges. Similar to monitoring emerging technologies, practitioners should develop a way to monitor pending compliance requirements. Developing an understanding of those requirements enables the technologist to analyze how existing technology and new technology can support new compliance requirements.

Key Skill Acquisition

Have a plan to ensure awareness of new technologies as they emerge.

Conclusion

The rapid pace of change in the workplace makes this an exciting time to be an IT practitioner. The need to acquire new skills at a fast pace adds an element of challenge to the excitement. Armed with a tactical plan to align skill development with their organization's strategic objectives, to remain cognizant of the importance of interpersonal skills, and to leverage internal and external professional relationships to monitor emerging technologies, practitioners can meet the challenge of developing skills that keep pace in rapidly changing environments.

Endnotes

1 ISACA®, *State of Cybersecurity 2018: Workforce Development,* USA, 2018, *https://cybersecurity. isaca.org/state-of-cybersecurity*
2 *Ibid*., p. 10
3 *Ibid*., p. 11
4 *Ibid*., p. 10