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IT Certifications Take A Turn For The Practical

Samuel Holcman

Summary

IT certifications are undergoing a structural shift from testing what candidates can *remember* to validating what they can *actually do* in realistic environments. Certification vendors, employers, and professionals are converging on skills-based, hands-on assessments that better reflect modern IT and AI-driven work, increasing both the credibility of credentials and their impact on hiring, promotion, and compensation.

Across the industry, traditional multiple-choice exams are giving way to performance-based questions, simulations, virtual labs, and scenario-driven evaluations that mirror how work is truly performed, with access to tools, resources, and AI copilots rather than isolated recall of definitions. Employers, facing persistent skills gaps in areas like AI and machine learning and struggling to find qualified talent, are investing heavily in upskilling and reskilling, and they increasingly prefer credentials that demonstrate applied capability over mere familiarity with a body of knowledge. For candidates, this shift raises the bar but also creates a more meaningful way to showcase technical and soft skills such as critical thinking, adaptability, and communication.

Examples from leading vendors illustrate this turning point. Providers like CompTIA are embedding performance-based simulations and virtual environments directly into core exams, while SAP is overhauling its certification model to focus on configuring systems, troubleshooting issues, building solutions, and solving open-book, real-world scenarios with modern tools and AI assistants. These changes align certification with contemporary practice: demonstrating how professionals work, collaborate, and solve problems in live environments, rather than how well they can take a test.

Hiring based primarily on demonstrable skills is sparking an industry shift with IT and tech certification vendors reworking testing environments to better reflect the modern world.

IT and tech certifications have long been a cornerstone of the industry, giving employers an easy way to identify skilled professionals, and allowing professionals to demonstrate and validate their IT and tech skillsets to employers. Now there's an increasing amount of in-demand IT certifications earned through hands-on, skills-based criteria that can help tech workers progress their tech careers across several different paths.

Certifications also have the potential to help employees boost salaries, with 32% of IT-cert holders saying they received salary increases for earning a certification, according to a 2025 survey from PearsonVue. Of those who say they earned a pay raise, the average reported increase was between 6 and 20%. However, 31% of respondents said they received a pay increase greater than 20%.

Changing with the times

As the industry and technologies have evolved, so has the demand for certain skillsets, especially those related to gen AI. In response, the certification industry is shifting to reimagine the certification testing process through real-world testing exercises.

"Employers are looking more for proof of applied skills, and traditional multiple-choice exams don't always capture the full picture of a candidate's expertise," says Thomas Vick, senior regional manager at Robert Half. "Certification vendors are likely responding to that demand, and understand that hiring managers want to know whether someone can step into a role and contribute, not just recall definitions."

The new face of IT certifications

This shift to hands-on and real-world certification testing has benefits to both employers and candidates. Employers can identify candidates with specific skillsets, and there's validation they're skilled and capable in necessary areas. For candidates, updated testing creates opportunities for learning and developing skills, and offers stronger confirmation of IT and tech skills through earned credentials.

PearsonVue also found that skills development is the main driver behind pursuing certification, followed by boosting chances of promotion, and then as a way to bolster a résumé. This indicates that one of the main drivers behind gaining certification is to advance education on a new skill, further develop current skills, and develop a candidate's career. On the candidate's side, these changes can provide an opportunity to showcase real strengths rather than just test-taking ability, says Vick.

Traditionally, certification exams have been structured as multiple choice or short answer tests, which only reflect a candidate's ability to memorize information and repeat it on an exam. So while this shift to hands-on testing might make certification exams more challenging or demanding, the added rigor may also increase the credibility and overall value of credentials that are completed, adds Vick.

For example, CompTIA is a popular IT certification vendor that has updated exams to include performance-based questions (PBQs), which are becoming a popular way for cert vendors to update exams without having to completely overhaul the process. In this instance, CompTIA has added simulation PBQs and virtual PBQs to its core exams.

For simulation PBQs, candidates are led through a series of questions and instructions, with interactive segments that require more than selecting just one correct answer. And with virtual PBQs, candidates are entered into virtual machines and systems that are running certain operating systems and software in a production environment.

"Earning certifications with PBQs often requires more hands-on practice and familiarity with specific tools and workflows," says Vick. "From a hiring standpoint, certifications that include PBQs may increasingly give employers added confidence in a candidate's practical readiness for specific roles."

Bridging the gap for in-demand AI skills

According to CompTIA's IT Industry Outlook 2026 report, 47% of IT professionals who responded said they planned to pursue industry-recognized certifications to demonstrate they have specific skillsets. Part of this is in response to industry shifts, with employers putting more emphasis on skills and abilities than education or background.

The report also found that nine out of 10 companies said they've made moderate to heavy investments in a skills-based workforce approach, which includes upskilling, reskilling, and cross-skilling existing technical staff, as well as hiring specifically for skills gaps within the organization.

“Employers need very specific skillsets to move their business goals forward, and finding the right talent has become more challenging,” says Vick. He points to data in the Robert Half IT Skills and Salary 2026 report, which shows that 65% of tech leaders said finding skilled professionals is more challenging than it was a year ago, and 61% plan to increase permanent headcount in the first half of 2026.

“Vendors seem to be responding to this by shifting their testing methods to better validate real-world skills, which may help both employers and highly skilled candidates in the hiring process,” he says.

Data further shows that most persistent skills gaps are in AI and ML, with only 7% of tech leaders saying they have the necessary skills in the organization to realize priority projects in the coming year. And 65% said they’ll need to upskill current team members.

Testing based off real-world skills is also beneficial to help candidates foster soft skills, which are becoming increasingly critical in an AI-driven world. As organizations embrace AI, they’re still finding the need for soft skills like critical thinking, adaptability and continuous learning, creativity and innovation, communication, and emotional intelligence, according to Robert Half. More nuanced and rigorous cert exams can also help validate the soft skills necessary to get projects done in a modern tech environment.

SAP overhauls certifications to focus on skills

SAP is one of the first vendors that’s made significant changes to its certification model, expanding it to better accommodate the skills necessary for modern tech and IT environments. The vendor wanted to stop focusing on memorization with testing and instead emphasize a candidate’s ability to solve real-world problems and implement effective solutions.

In this new series of certifications, candidates are tested on real-world situations, where they’re expected to configure systems, troubleshoot issues, build solutions, and analyze data. The exam process also includes open-book problem solving portions, where candidates are allowed to rely on any resource they’d reasonably have access to at work, including AI Copilots. Plus, candidates are tested on scenario-based tasks, and asked to navigate guided scenarios, respond to mock stakeholders, and complete case study challenges.

“This type of overhaul signals an alignment with how a lot of IT work gets done today,” says Vick. “In real environments, professionals rely on a mix of tools like AI to solve problems, be more efficient, and innovate.”

Giving candidates access to modern tools, resources, and AI assistants in their day-to-day jobs better demonstrates what they can accomplish at work. Multiple choice test can't do this as effectively. Hands-on and open-book testing, however, gives candidates the opportunity to show employers how they work through problems, and what they can accomplish under more realistic working conditions, says Vick.

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Author Biography

SAMUEL B. (Sam) HOLCMAN is the Chairman of the Architectures Center Of Excellence, the Managing Director of the Enterprise Architecture Center Of Excellence (EACOE), and the Business Architecture Center Of Excellence (BACOE), and the President of the Zachman Institute for Framework Advancement (ZIFA). He is considered the practitioners practitioner in Enterprise Architecture and Business Architecture, and the leading implementer and world-wide educator and trainer in Enterprise Architecture and Business Architecture methodologies and techniques.

The Architecture Center Of Excellence (ACOE) provide its clients with innovative, yet practical solutions to a range of business and systems related challenges and activities. He was the Vice President of Modelware, Methodologies, and BPE (Business Process Engineering) for a major software company. Prior to this experience, Mr. Holcman was the Founder and President of Computer and Engineering Consultants, Ltd. His interests include consulting and research on topics such as enabling business strategies, enterprise architecture, business architecture, business process engineering, intellectual capital management, organization development, system methodologies and life cycles, corporate business modeling, and accelerated analysis techniques. Mr. Holcman conceptualized and constructed a unique look at system development methodologies, which resulted in the highly regarded ForeSight ™ methodology and methodology management product.

He has developed a strategic planning process that is used by many Fortune 500 companies and is the co-developer of the widely used accelerated analysis (JAD-like) technique known as Rapid Analysis. He has also developed an innovative approach to Business Process Re-Engineering known as Business Process Visualization ™ and Organization Network Analysis ™. These techniques are being used to Unlock the Hidden Assets in your Organization ℠.

In association with Mr. John Zachman, he formed The Zachman Institute for Framework Advancement (ZIFA), to explore, explain, and share the concepts of enterprise architecture. Sam has also focused on understanding the value and management of Intellectual Capital to enterprises. He has developed the Intellectual Capital Maturity Model ™ to provide guidance on how effectively organizations are managing their Intellectual Capital, and steps they can take to more effectively manage this capital, and the Enterprise Architecture Maturity Model, and the Business Architecture Maturity Model, to provide guidance to organizations seeking to improve their understanding and implementation of Enterprise Architecture and Business Architecture concepts. He has developed and published works on Cooperatively Optimized Relationships (COR), which is the next generation of understandings in the field of Customer Relationship Management (CRM). To better understand an organizations “DNA”, Sam led the development of The Enterprise Framework ™ and The Business Architecture Framework ™. Both have received worldwide acclaim for their understandability, and usability, while maintaining theoretical purityHe published the book titled “*Reaching the Pinnacle – a Methodology of Business Understanding, Technology Planning, and Change*” and “*Enterprise Architecture – A Pragmatic Guide of Practitioners and Stakeholders”*. Thes books bring a method to the marketing madness that surrounds Enterprise Architecture, and its straightforward and no-nonsense style sheds much light on a poorly understood topic. The book helps business executives and technology professionals through the process of building an Enterprise Architecture appropriate to their organization’sneeds. Mr. Holcman published the book titled “*Business Architecture, The enabler of Business Strategy”.* Holcman presents a no-nonsense, direct, and easy-to-follow approach to Business Architecture. This makes it particularly useful for those looking for actionable insights. The book is described as "a book of action, not surveys or choices – moving from theory to strategy enablement".

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This practical orientation can be valuable for new architects or professionals seeking to apply Business Architecture concepts in real-world scenarios. It provides a thorough treatment of Business Architecture, covering topics from establishing and maturing a Business Architecture practice to actually developing a human-consumable Business Architecture. The Business Architecture process presented is both theoretically sound and refined through actual practice. The methodologies have been tested and proven in real business environments. Holcman emphasizes that Business Architecture helps the business run better, rather than "architecture for architecture's sake". This aligns well with the needs of business professionals looking to improve their organizations. This book helps organizations move from Strategic Intent to a Business Strategy to Strategy Enablement. The book provides clear, understandable approaches, making it suitable for a wide audience, from business professionals, strategists, and new or practiced Business Architects. The book emphasizes the role of Business Architecture in strategy execution, which may be particularly relevant for those interested in aligning business strategies with technology enablement.

Sam hosts a podcast and webinar broadcast titled *Real Talk with Sam Holcman*. These broadcasts are about sorting through the internet-driven advice madness that exists in business today, and provide practice-based insights in business transformation, organizational transformation, enterprise architecture, business architecture, and technology transformation, based on real world practices.

Sam was with Ford Motor Company in data processing, finance, and engineering. He was Vice President of a robotics and factory automation firm. He was also a senior member of a technology delegation to the People's Republic of China, on the invitation of the Chinese and United States Government, and a member of a technology delegation to the Commonwealth of Independent States (Soviet Union).

Sam has a Bachelor's degree in Bioengineering and Master's degree in Electrical Engineering, and a Master's in Business Administration from the University of Michigan, Ann Arbor. He has been elected to Eta Kappa Nu (electrical engineering honors society), and Tau Beta Pi (engineering honors society), and is a member of numerous societies and professional organizations, and is a frequent speaker at seminars around the world. He can be emailed at Sam@ArchitecturesCOE.org, or reached by telephone on (810) 231-0531.

Partial List of Advisory and Implementation-Related Clients Sam has consulted with.

