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Closing the Cloud Skills Gap with Learner-Centric Performance Support Experiences: Case Study: IBM Center for Cloud Training

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ABSTRACT

Spurred by the urgent need to respond to a growing worldwide technology skills gap, the IBM Cloud Skills Initiative, launched in 2019, today plays an important role in supporting IBM's commitment to provide people with the skills needed to fill the jobs of tomorrow. The IBM Center for Cloud Training (ICCT) serves as a critical learning resource for helping achieve the initiative's goal of closing the global cloud skills gap. Through an innovative training program launched in October 2020, ICCT offers Performance Support Experiences (PSEs) designed to motivate and support learners and facilitate their achievement of program credentials and their pursuit of IBM Cloud certification. With PSEs that include online, real-time, and customized study support, ICCT surpassed its stated goal of credentialing participants by the end of 2022. The primary purpose of this article is to describe the components of the program and outcomes achieved and in so doing demonstrate the value of the center's PSE-based approach to learning.

KEYWORDS

cloud skills gap, cloud training, cloud certification, performance support

1 THE DRIVE TO CLOSE THE CLOUD SKILLS GAP

Launched in response to a comprehensive skills gap analysis, the IBM Cloud Skills Initiative is a training and certification program available to IBM's customers around the globe, business partners and 350,000 employees. The initiative began in 2019 with a two-year timeline to full implementation. Offering cloud training that leads to professional certifications for cloud architects, cloud developers, site reliability engineers and specialists, the initiative seeks to address the IT skills shortages that have been predicted to affect 90% of organizations by 2025 [1].

The initiative is certifications-focused, in the belief that certifications serve the interests of both technology companies like IBM and the people who work for them.

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According to one recent study, certified IT professionals specifically report high quality outcomes, faster resolution times, and sharper focus at work after earning certifications, and 34% of IT leaders say these professionals add \$25,000 or more in value to their organizations [2].

Through the IBM Center for Cloud Training (ICCT), the IBM Cloud Skills Initiative offers fourteen job roles and specialty certifications. Certification design is based on an evaluation of learning needs, conducted in conjunction with IBM executive leadership to ensure certification programming is tied to enterprise strategy. Certifications are refreshed every 6–12 months to ensure content is up to date and relevant to the job roles the training supports. The courses required to achieve certifications are free, other than a fee for exam administration by an independent third party.

2 ICCT: PATHS TO CERTIFICATION

ICCT provides learning paths that lead to certifications designed for large-scale, on-demand, worldwide upskilling. They feature training curricula that help businesses quickly fill the gap between needs and capabilities.

ICCT uses two types of certifications to validate skills:

- IBM Certification: recognition of the knowledge, skills, and/or competencies necessary for a performance role or specific work-related responsibilities.
- IBM Specialty Certification: recognition of knowledge and competencies in key domain areas, such as cloud security and distributed computing, for example, as well as key technologies like SAP (enterprise resource planning) and VMware (virtualization and cloud computing).

Each learning path ICCT provides is designed to be familiar to those pursuing certifications. As they advance through levels of expertise, learners recognize the step-by-step content and methodology, because they have encountered similar learning paths in previous curricula. For ICCT, this philosophy streamlines the process of rolling out courses, because the curricula design adheres to an established sequence of similar learning paths.

3 LEARNER-CENTRIC PERFORMANCE SUPPORT EXPERIENCES

ICCT offers role-based and specialty certifications to the global audience of professional learners and others who seek to earn an IBM Cloud certification. Launched in October 2020, ICCT has a variety of innovative Performance Support Experiences (PSEs) that include online, real-time, and customized study support designed to facilitate successful certificate completion. These PSE initiatives motivate and support learners as they embark on their cloud upskilling journey, facilitating exam success. Additionally, the breadth of initiatives in the support programming means learners can gravitate to the support that best suits their current level of knowledge, experience, and learning style.

ICCT strives to put the learner first and in control of their learning journey, supporting and empowering them with PSEs that include the following.

3.1 Study support

Study Jams are first-of-a-kind, online exam prep experiences featuring IBM experts, videos, rapid response questions, and more, streamlined into two hours

a day over three days. Based on specific role-based or specialty certification training and led by IBM Cloud experts, they also provide community-building opportunities for learners enabling success during the certification exam.

IBM Cloud Prep is a study-on-the-go resource that enables learning on any device—phone, tablet, laptop—anywhere a learner happens to be. Resources include flashcards with sample certification exam questions, detailed study guides to help with exam prep, and practice quizzes to test mastery of the subject matter prior to the exam.

Cloud Compass is a training evaluation tool that helps learners find the certification that's right for them. Given the breadth of offerings from ICCT, it can be difficult for them to figure out how to proceed, but with this simple three-question assessment, a learner can provide specifics about their role and experience to help ICCT steer them to an appropriate certification.

3.2 Motivation

Badges provide learners with a way to show their cloud knowledge to peers, managers, and future employers, by displaying them in digital communications like social media and email. Learners have opportunities to earn badges by testing their knowledge over the course of their training, and the tests also serve as good preparation for the official certification test at the end of their training.

Ingrid is an augmented reality helper who provides a cheerful, fun way for learners to navigate their training. She shows up periodically on the ICCT website, in training, and as part of various tools such as the Cloud Compass to help keep learners engaged and paying attention.

Second Chance is a program that gives learners the opportunity to retake certification exams for free if they do not pass the first time. It takes the pressure off first-time test takers who may fear failing and makes it easy for people who came close to passing initially to try again.

3.3 Information and knowledge sharing

ICCT Cloud Training News keeps learners in the loop with updates about certification process improvements, new study tools, special offers, and other promotions.

IBM TechXchange Webinars are monthly broadcasts featuring IBM Cloud experts sharing information of interest to learners—often featuring special guests that may range from the IBM Cloud CTO to a learner who has earned all 14 certifications.

IBM Cloud Certification FAQs provide answers to typical questions and include an exam checklist. They are particularly useful for learners who find it helpful to become familiar with the exact steps involved in completing their certification.

ICCT Podcast features cloud-centered episodes on Spotify and Apple Podcasts. TechXchange webinars are also replayed as podcasts through this program.

3.4 Community

IBM Cloud Community is an online source of expert information about new certifications, with cloud discussions, webinars, blogs, videos, and opportunities to ask questions of other IBM cloud professionals.

IBM Cloud blog reaches 200,000+ readers with online articles that highlight IBM Cloud-related information, research, and case studies, including ICCT-authored posts.

Amplify website is home to communications that complement the IBM Cloud blog with success stories and training best practices.

4 THE METRICS OF SUCCESS

Since its inception in 2019, ICCT has surpassed its goal in every metric that was measured. Highlights of engagement with learners included:

- 50,000 Study Jam registrants online study sessions focused on a single certification topic: Professional Architect, Cloud Technical Advocate, Cloud Advocate and IBM Cloud Security Engineer and others.
- 690,000 total pageviews for IBM Cloud Prep.
- 5,200 pageviews of Cloud Compass within six weeks of rollout.
- 250,000 IBM Cloud blog audience per publication.
- 600 million impressions in website and social media, including The Weather Channel ads.

5 THE MULTIPLICATIVE IMPACT

Beyond the value of individual PSE initiatives in helping learners gain cloud skills and earn certifications, ICCT discovered that there is a multiplicative effect that occurs when the initiatives are employed as part of a learner community. For example, in one virtual study group that included *weekly check-ins*, *encouragement* (via a study app), *engagement* (using a dedicated Slack channel), and live WebEx-based *interaction*, ICCT far exceeded its target metrics:

- 4× expected respondents.
- 70% engagement with weekly emails.
- 2.5× expected certifications achieved.
- 59% increase in the pass rate.

There was clear value derived from the community-based learning experience. Learners favorably reported that they realized ICCT was committed to their success, they were immediately implementing their learnings in their day-to-day work, and they experienced increased effectiveness in their jobs.

6 CONCLUSION

The high level of interest and the progress achieved in ICCT's PSE-based learning program in 2022 demonstrates that the program is finding a wide audience, deeply engaging the participants, and helping them succeed on their journeys to certification. Given this success, ICCT plans to expand this initiative to include its Top 50 clients as a next step.

7 REFERENCES

- [1] International Data Corporation (IDC), “IDC FutureScape: Worldwide future of work 2022 predictions,” IDC, November 18, 2021. [Online]. Available: <https://www.idc.com>. [Accessed: June 30, 2023].
- [2] Skillsoft Global Knowledge, “2022 IT skills and salary report,” Skillsoft Global Knowledge, October 2022. [Online]. Available: <https://www.skillsoft.com>. [Accessed: June 30, 2023].

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