

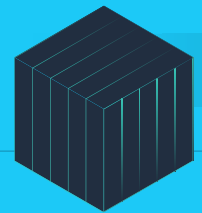


Comprehensive Cloud Skills Training Drives Digital Transformation Success

Rethinking cloud fluency as a catalyst, not just a component



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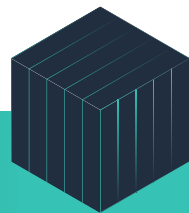
INTRODUCTION

A larger piece of the puzzle

In bigger and more impactful ways than previously believed, comprehensive training for cloud fluency accelerates and broadens cloud adoption, enabling the changes that drive digital transformation success.

To demonstrate how and why, let's start by exploring what "digital transformation success" really means.

Digital transformation is defined as the process of evolving from rigid, legacy platforms to an IT environment designed to adapt more quickly to the changing needs of customers. The success of this transformation is driven by multiple factors that can be divided into two categories: technology and people.¹



First, with regard to technology, businesses must invest in and implement emerging solutions and services. This nearly always involves some degree of cloud adoption, and there is growing consensus that cloud should be a core component of any digital transformation strategy.²

The second category of digital transformation success is people, wherein various culture changes enable greater employee engagement, higher staff productivity, and faster service delivery. Traditional mindsets must be challenged for the benefits of new technology to materialize. This requires customer-focused operational models, incentivizing innovation and experimentation, and enabling the staff with a broad range of training resources and programs.

Nearly 80% of businesses are undergoing digital transformation—yet 90% of those businesses report they are facing significant obstacles to success.³ Some piece of the digital transformation puzzle must be missing.

A 2020 ESG research report found that—among organizations identified as “mature” with respect to their digital transformation initiatives—97% currently use cloud services.⁴ This suggests a connection between cloud and successful digital transformation. But the relationship goes further than that.

Digital transformation success ultimately hinges on your organization’s ability to integrate both technology and people into a unified strategy. By simultaneously embracing cloud technology and promoting cloud fluency across your staff, your organization will see this unification begin to take shape. You’ll start to go beyond “cloud adoption” to achieve what we call “cloud transformation”—a fundamental shift toward a flexible, rewarding environment where both technology and people can harmoniously shine

The cloud introduces a significant shift in how technology is obtained, used, and managed. Cloud can help you to develop, deploy, and run modern applications with increased performance and availability. It allows you to store, manage, and analyze all of your data and workloads with greater depth and efficiency. And cloud gives you access to capabilities you simply can’t get anywhere else.

This results in lower costs and improvements in operational resiliency, staff productivity, and business agility. These benefits grow larger and more impactful as you promote broader understanding and active use of the cloud across your whole organization, help your staff update their skills, adapt existing processes, and introduce new processes.

Ultimately—with the right strategy—cloud transformation will help cultivate the

customer-focused, innovation-driven culture that drives digital transformation forward. (Refer to the [AWS Cloud Adoption Framework](#) for more guidance.)

Cloud transformation simply cannot happen without proper training. Training has long been seen as a component of cloud adoption. But mounting evidence suggests that comprehensive training for cloud fluency is a larger piece of the puzzle—a foundational driver that enables cloud transformation and lasting, organization-wide digital transformation.

Comprehensive training can act as the engine that powers cloud transformation





According to research, organizations that succeed with digital transformation invest three times more in technology education and training than those that lag behind.⁵ And a study by IDC found that comprehensive training accelerates cloud adoption, leads to greater achievement of business and internal objectives, and helps businesses overcome their initial concerns about the cloud.⁶

Backed by the right mindsets, investments, and resources, comprehensive training can act as the engine that powers cloud transformation. It can help your business go beyond technology to create a culture of innovation, knowledge sharing, and continuous learning—where your staff is primed and fully prepared to take on the challenges and reap the benefits of digital transformation.

In his keynote address at AWS re:Invent 2019, AWS CEO Andy Jassy identified “training your builders” as a key differentiator of companies that successfully transform with the cloud.

“It’s not hard to use the cloud—but you’ve got to train people that don’t have experience. AWS trains hundreds of thousands of customers every year,” Jassy said.

Many of the people you’ll be training likely have much of knowledge and expertise they’ll need and should pick up the cloud fairly quickly. But creating a holistic, organization-wide training program that helps your staff gain cloud skills in a systematic, comprehensive manner can be quite complex. That program should maximize the benefits of the cloud to deliver on the promise of digital transformation.

In this e-book, we’ll explore some obstacles that stand between your business and digital transformation success and show how comprehensive training helps you overcome those challenges to enable cloud transformation. We’ll also provide best practices for creating and implementing a comprehensive training approach, and explore success stories of businesses that have achieved positive results by promoting cloud-fluency across their organizations.





What is “comprehensive training”?

Comprehensive training refers to a holistic approach to training that enables all employees to master essential skills. It generally includes both fundamentals training for a wide range of stakeholders and deeper training for key technical teams.

Comprehensive training helps ensure a complete and practical understanding of skills while also giving participants the flexibility to learn at their own pace and in their own ways, remotely and in person. It does this by offering courses across multiple formats and media, including:

- Virtual classroom training
- Digital training
- On-site private training
- Public classroom training
- Hands-on labs
- Certification programs
- Events and workshops
- Communities of practice



CHALLENGE

Closing the cloud skills gap

Making the technology and culture changes required for digital transformation success is an immensely complex effort, one often curtailed or even outright prevented by a number of obstacles.

The most daunting of these challenges is the cloud skills gap, defined as the growing separation between the capabilities of cloud services and the ability of internal staff to take advantage of them.

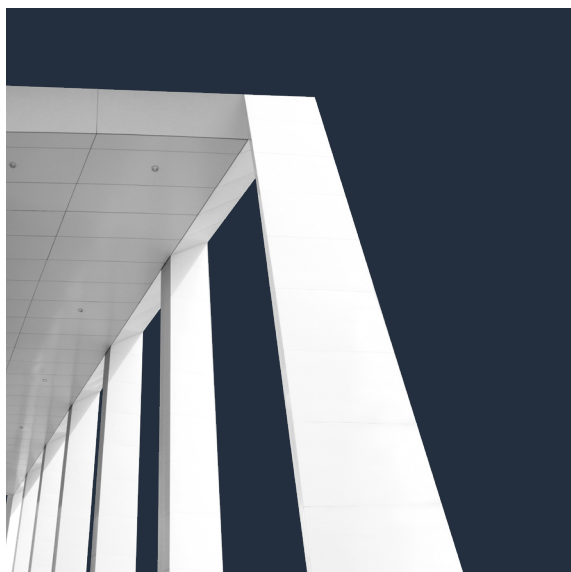
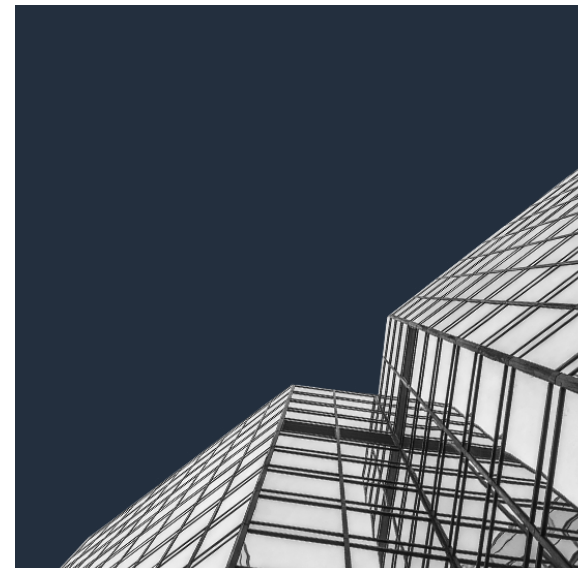
According to a study by 451 Research, 90% of IT decision makers say that their businesses are lacking cloud skills.⁷ Another report found that 71% of IT decision makers believe their organizations have actually lost revenue due to a lack of cloud expertise, with average perceived losses amounting to 5% of total earnings.⁸

You may already have the people you need to succeed with the cloud. You just need to train them.

Some progress has been made in closing the gap. Unfortunately, new challenges continue to arise—68% of IT decision makers anticipate new skills gaps to emerge in the next two years.⁹

Like digital transformation as a whole, the key to closing this gap is culture change. But attempting to force any culture change through strict executive mandates or rigid, rushed measures is a recipe for resistance, resentment, and subpar results.¹⁰

Thankfully, comprehensive training—when implemented and maintained properly—can enable sustainable culture change, organically driving buy-in, enthusiasm, and adoption across your entire business.



SOLUTION

Cloud fluency for all

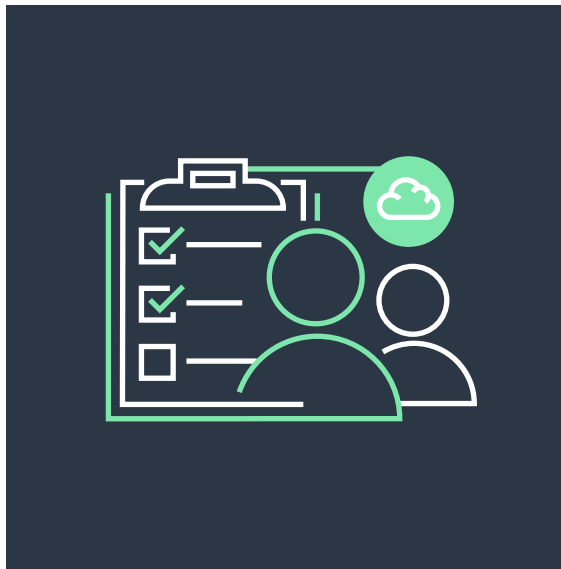
Comprehensive cloud training unlocks a number of key business benefits, many of which help close the skills gap and facilitate the technology and culture changes that make digital transformation possible.



A study by IDC showed that comprehensively trained organizations:

- Adopt the cloud 80% faster and are 1.9 times more likely to move beyond limited deployment
- Are 2.7 times more likely to realize that cloud can help jump-start innovation and 4.7 times more likely to agree cloud can improve IT staff productivity
- Meet cloud ROI requirements 3.8 times more often and are 4.4 times more likely to overcome operational and performance concerns¹¹

Comprehensive training can also help you retain your best talent. According to an IDC survey, IT professionals who participate in training activities are 30% more satisfied with their jobs than those who don't.¹²



Everyone needs to learn the fundamentals of cloud technology, security, and cost management

We provided a general definition earlier in the e-book, but here is what a truly comprehensive approach to cloud training requires:

- 1 The right set of training and certification programs
- 2 Support from tools, resources, consultancy, executive commitment, and sufficient financial and time investments
- 3 A people-centric, practical, hands-on learning and development approach

(Note: If you've developed a Cloud Center of Excellence "CCoE" or Cloud Enablement Engine "CEE", designing a comprehensive training program will be substantially easier. To learn more about building a CCoE/CEE and other cloud migration strategies, [read this whitepaper](#).)

Comprehensive training also means training for everyone. To create a training strategy that facilitates culture change, you'll need to build cloud fluency across all teams and departments. This will necessitate role-based training.

"The companies that really succeed are the ones that train significant numbers of people. We train hundreds of thousands of people a year just for that reason, because once you get that firm base and experience, it becomes much easier."

— ANDY JASSY, AWS CEO¹³





The specifics of your role-based training strategy will vary depending on your business, size, industry, objectives, and organizational structure. But there are some general guidelines as to which team members should work to acquire which skills:

1

Builder teams need to learn about modern app development and specific cloud services

2

Business leaders need to understand emerging cloud topics—such as machine learning, internet of things (IoT), and real-time analytics

3

Everyone needs to learn the fundamentals of cloud technology, security, and cost management

Financial management and cost optimization will be part of everyone's job, though with varying degrees of depth and involvement. Keeping performance high and costs low is a shared responsibility that will require cross-team and cross-department collaboration, so be sure to make this a focus of training for all roles.

aws training and certification



Certification should be another key component of your comprehensive training strategy, as it helps validate skills, motivates employees to get and stay engaged, and increases productivity. According to one study, 54% of IT decision makers believe AWS Certified professionals are better at meeting client requirements. Forty-nine percent say they are more productive, 44% report they are faster troubleshooters, and 93% agree that certified team members add value that goes beyond the cost of certification.¹⁴

Winning strategies of promoting certification include the creation of games and competitions (gamification), top-down initiatives where management is held equally or more accountable for attaining certifications as other staff, and various means of rewards and recognition.

A comprehensive training strategy includes the right courses and tools, enables organization-wide cloud fluency, and makes intelligent use of certification programs. Creating and implementing a strategy that meets these imperatives ultimately helps move your cloud adoption and digital transformation initiatives forward. It knocks down obstacles, narrows the cloud skills gap, shortens time to value, and helps to make team members more productive and your business more competitive.



A comprehensive training strategy includes the right courses and tools, enables organization-wide cloud fluency, and makes intelligent use of certification programs.

For the strategy to achieve maximum results, all of the components we've described in this section must work together. They must seamlessly feed into and reach across one another, combining to form a whole that's greater than the sum of its parts. They must work as harmonious, holistic, comprehensive training engine that's solely dedicated to the development, dissemination, and continuous renewal of cloud-fluency. Only then can your organization and its people fully embrace the culture necessary to facilitate and accelerate cloud adoption and digital transformation.

So, how do you get there? What's the best path toward establishing comprehensive training and realizing all the associated benefits? In the next section, we'll provide guidance and detail some best practices on how you can make comprehensive training for cloud fluency a reality for your business.



BEST PRACTICES

Bringing comprehensive training to life

Adopting a comprehensive training approach to cloud fluency is no easy feat. To help light your way, we've identified some general steps, best practices, and guidance—derived from both our own research and our customers' success stories.

Your business' path will certainly be unique, with its own twists, turns, unexpected benefits, and unplanned diversions. But these best practices are a great place for any organization to start—and, in case you get stuck, we've included further guidance on how AWS Training and Certification can help you along the way.





Begin with a thorough analysis

Survey every department of your organization to identify the location, size, and scope of your cloud skills gaps. AWS can help by conducting a free [Learning Needs Analysis](#), collaborating with you on plan development and providing [Ramp-Up Guides](#) that kick-start the process.



Build a holistic program

Craft a targeted knowledge-management program to close your cloud skills gaps by training the right learners at the right time. The program should combine all your training practices and materials into a unified, structured approach. It should also establish mechanisms to diagnose and address recurring problems, identify the causes of both good and bad performance, and adjust processes accordingly. AWS can work with you to create this program, building adaptable and continuous learning mechanisms that enable cloud fluency and accelerate cloud adoption at



Mix it up

Use a variety of training options and media, including both self-paced and instructor-led courses. Self-paced digital courses allow learners to train at their own pace, on their own time, and in their own ways, while instructor-led training offers a deeper experience and the advantage of asking questions in real time. AWS offers 550+ free on-demand digital courses through a single portal, [aws.training](#). We provide public classroom training and can work with you to plan private on-site and virtual training, workshops, immersion days, and live events. Employees can also follow our tailored [learning paths](#) designed to comprehensively teach particular skills.



**Build a
flexible plan
that fits all
learning
preferences**





Build a community

Provide training opportunities that go beyond courses to create a larger community of practice that includes mentorship and peer-to-peer learning. Pinpoint internal experts and connect them with groups that need their knowledge, and link or coordinate unconnected activities and initiatives requiring similar skills and talent. AWS offers workshops that help managers and employees develop and nurture communities of practice to enrich the continuous learning experience, recognize accomplishments, and find innovative approaches to utilize new skills.



Keep it real

Ensure that course materials provide hands-on, role-based training that shows learners how to directly apply new skills to their real-world job duties and challenges. This should be a priority across all your training courses, but instructor-led training and labs provide a much deeper learning experience than a recorded video. AWS offers role-specific, hands-on training, and our virtual classroom courses are conducted by AWS experts and accredited instructors.



Incentivize through certification

Use industry-recognized certifications to validate cloud skills and encourage learners to complete the skills enablement curriculum designed for their job functions or interests. Offering to fund certification preparation and exam fees for employees who have completed a specific set of courses or learning track will provide further incentive. [AWS offers](#) role-based certifications for those in Cloud Practitioner, Architect, Developer, and Operations roles, as well as Specialty certifications in specific technical areas.

In the next section, we'll see how businesses are applying these best practices to create comprehensive training strategies and reap the rewards of cloud fluency today.

**Achieving
organization-wide
cloud fluency isn't
easy, but the results
are worth the effort.**

SUCCESS STORIES

Cloud fluency delivers results

NAB helps employees build bankable cloud skills

Seeking to better meet customer demands and launch the company into a new era, the National Australia Bank (NAB) embarked on a journey to promote cloud fluency across its organization.

"If you want to build a company of builders, you have to have technology career pathways," said Patrick Wright, CTO and Operations Officer at NAB.

In April 2018, NAB launched the NAB Cloud Guild as an internal training mechanism. In two years, more than 4,500 bank staff have been trained on cloud services, and over 800 of those employees have now validated their technical skills and expertise with AWS Certification.



"If you want to build a company of builders, you have to have technology career pathways."

— PATRICK WRIGHT, CTO AND OPERATIONS OFFICER, NAB

"We got a lot of people to start talking about cloud organically ... they're becoming self-learners, which is fantastic," said Paul Silver, managing engineer and founder of NAB Cloud Guild. "After people got certified on their first exam, they're actually going off and self-learning this content, with the outcome of getting more and more certifications ... it creates a nice culture inside of the organization."

AWS also helped teach NAB staff to be in-house trainers, so the bank can execute training at scale and continuously build organizational knowledge.

"The business benefits are huge. AWS enables us to drive outcomes incredibly fast, so we'll be able to meet our customer expectations and customer journeys a lot faster than we ever have been able to in the past," Silver said.

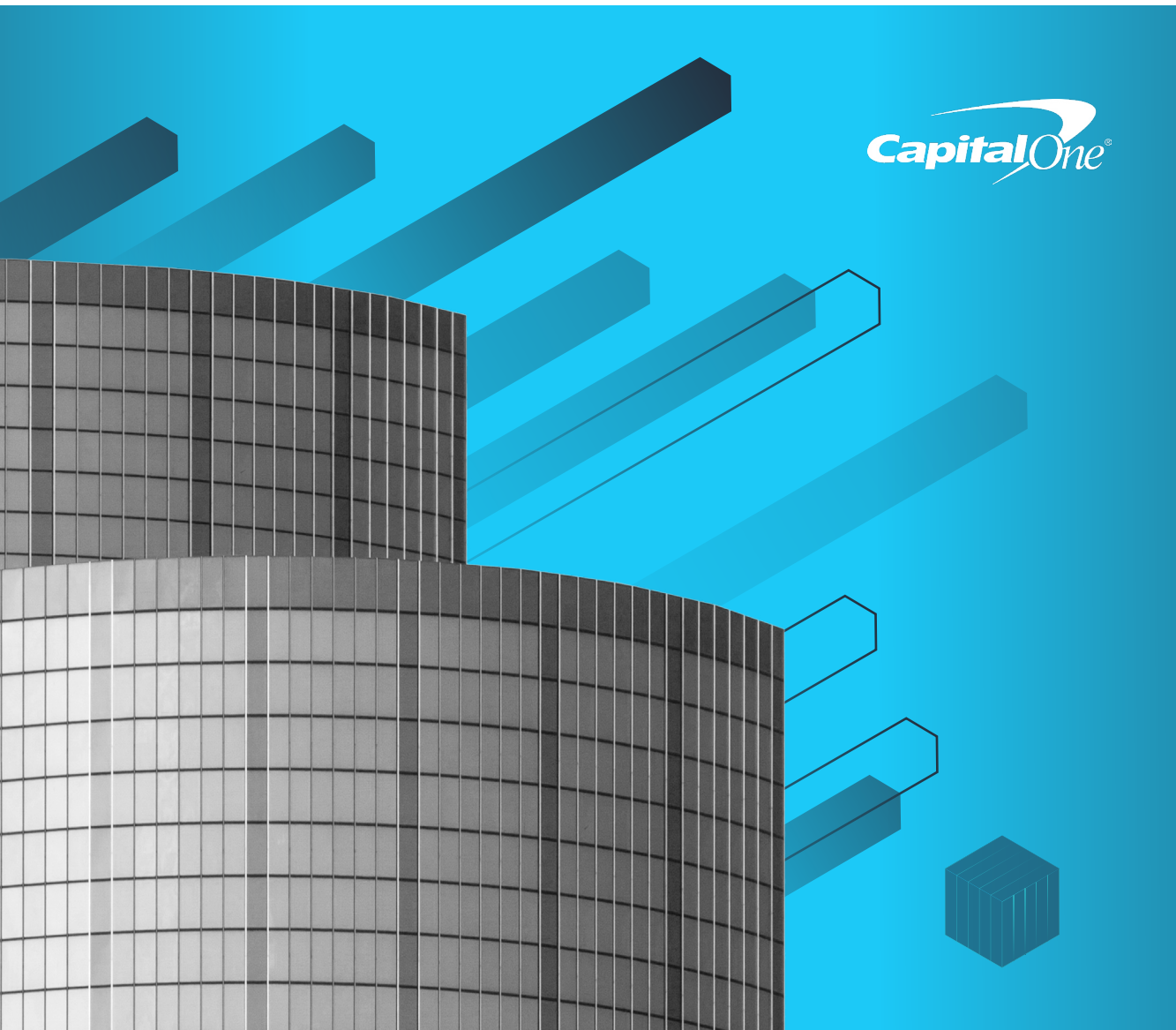
[Read the full success story »](#)

[Watch the success story video »](#)



**In two years,
more than 4,500
NAB staff have
trained on cloud
services, with
over 900 earning
certifications**





Capital One achieves cloud-first success with a people-first approach

Capital One's bold decision to implement a cloud-first policy—under which all new applications are architected for and deployed in the cloud—helped it achieve a number of business goals. But the company had to ensure it built organization-wide buy-in for the decision in order to get there.

One of the ways Capital One achieved that buy-in was by implementing a robust cloud computing training program. That program was successful partly because of the wide net that it cast.

Capital One began offering carefully designed and tailored training not only to the engineers who work directly with the AWS Cloud but also to the business executives and other non-technical stakeholders who need to be able to understand and advocate for cloud computing's transformational potential.

The program yielded many benefits, including a boost in the company's recruiting abilities.

"To deliver on our central promise of bringing simplicity and humanity to banking, we need top talent working for us," said George Brady, executive vice president and CTO at Capital One. "I can't overstate how much easier it gets to attract top applicants when they know that, whatever new technologies come along while they're working here, or whatever new directions they want to take their skills in, they're going to be supported in getting as much training and education as they need."

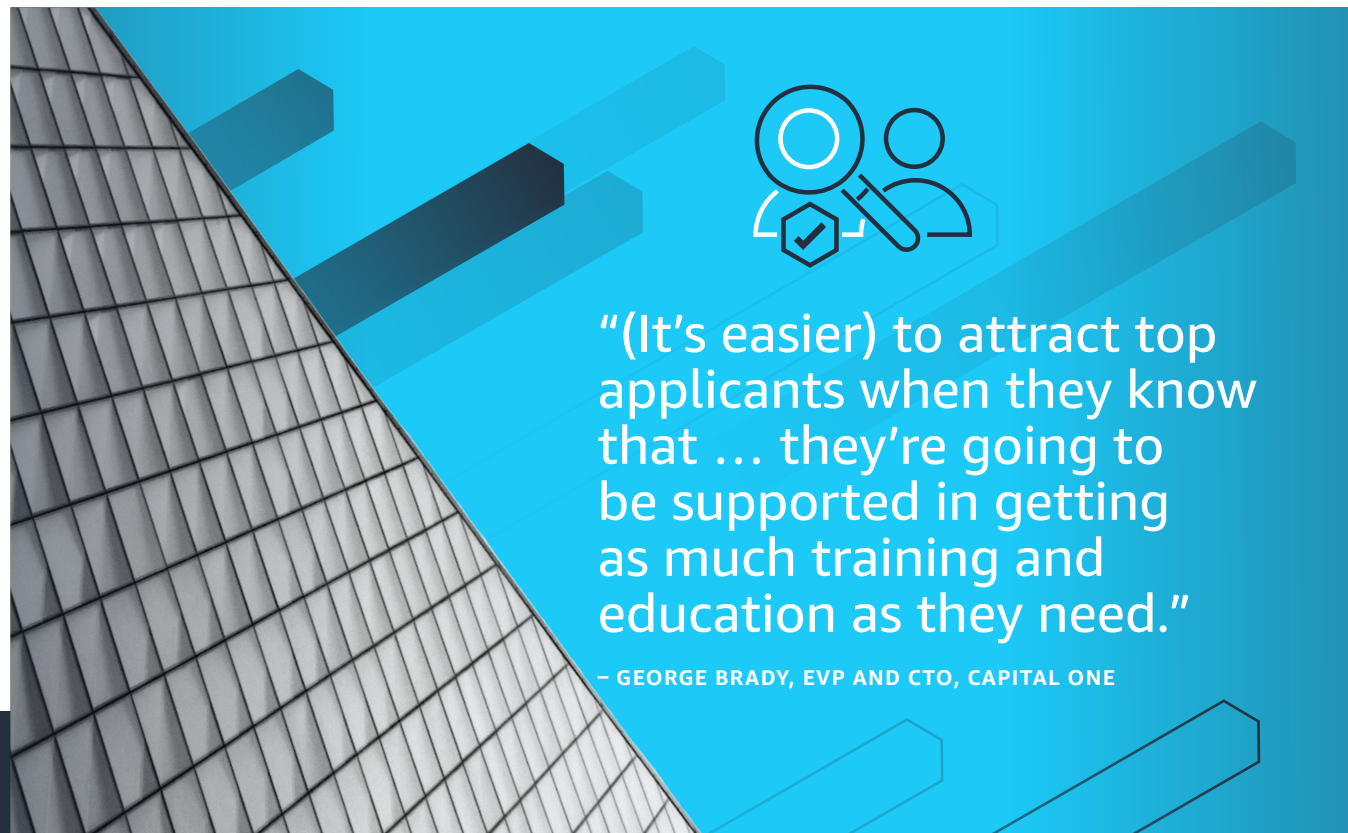
To validate skills and encourage completion of certain training paths, Capital One also worked to help its employees earn industry-recognized certifications.

"When we made the decision to go cloud-first with AWS as our predominant cloud supplier, we also decided we would support all our associates in achieving any number of AWS Certifications they want," Brady said. "As a result of that

[Read the full success story »](#)

emphasis, we're now in the top three of all enterprises globally for AWS Certifications held by employees, and that's something we're really proud of."

[Discover other ways Capital One uses AWS »](#)



"(It's easier) to attract top applicants when they know that ... they're going to be supported in getting as much training and education as they need."

— GEORGE BRADY, EVP AND CTO, CAPITAL ONE

CONCLUSION

Igniting digital transformation through cloud fluency

Digital transformation requires both new technology and culture change. Cloud technology is fundamental to the effort, but cloud transformation is an organizational initiative that goes beyond implementation of new technologies and requires a new operational model, cloud-based processes, and product teams with the right set of cloud skills. Building organization-wide cloud fluency is thus essential to a comprehensive training strategy and to the larger digital transformation effort.

Leading organizations cultivate cloud-fluency enablement opportunities with a structured knowledge management strategy dedicated to the advancement of cloud talent. They develop environments to create, share, and apply knowledge within and across the boundaries of teams, business units, and even the entire organization. They establish mechanisms to diagnose and address recurring business problems, analyze the knowledge-related sources of good and poor performance, and optimize processes to bring everyone's skills to the highest standard. These organizations learn from experts, connect local pockets of expertise and isolated professionals, apply knowledge to real-life problems, and link or coordinate unconnected activities and initiatives requiring similar skills and talent.

AWS Training and Certification can help bring those best practices to your business, accelerating growth and increasing agility by building cloud fluency across your organization. We offer resources that enable you to develop and attract cloud talent, create adaptable and continuous learning mechanisms, and modernize your organization at scale.

AWS Training and Certification can work with you to identify your cloud skills gaps by conducting a free [Learning Needs Analysis](#), which is designed to uncover your training needs by using a survey to capture data. You can also use [learning paths](#) and AWS [Ramp-Up Guides](#) to set up role-based or solution-based training paths to kick-start skills enablement.

Moreover, AWS Training and Certification experts help you develop and implement a tailored, comprehensive training plan. Your plan may include a variety of offerings, including onsite and virtual private training, digital training, public classrooms, and events like Hackathons and Game Days.

AWS also offers workshops that enable managers and individuals to develop and nurture communities of practice, enrich the continuous learning experience via peer-to-peer learning, encourage builders to get certified (especially the professional and specialty certifications), recognize accomplishments, and find innovative approaches to utilize new cloud skills.

Finally, AWS Certifications play a key role in the skills enablement journey by validating cloud skills and incentivizing participants to complete the learning paths designed for their roles or solutions of interest.

While training has long been viewed as a component of cloud adoption and digital transformation, recent findings suggest that a comprehensive approach to cloud fluency training can also be the spark that ignites a critical change in culture. This change enables your business to bring meaningful, lasting, organization-wide digital transformation to life.

It's time to strengthen your workforce and move innovation forward.
Contact AWS Training and Certification now to get started.

Go to aws.training/enterprise, or select the button below.

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