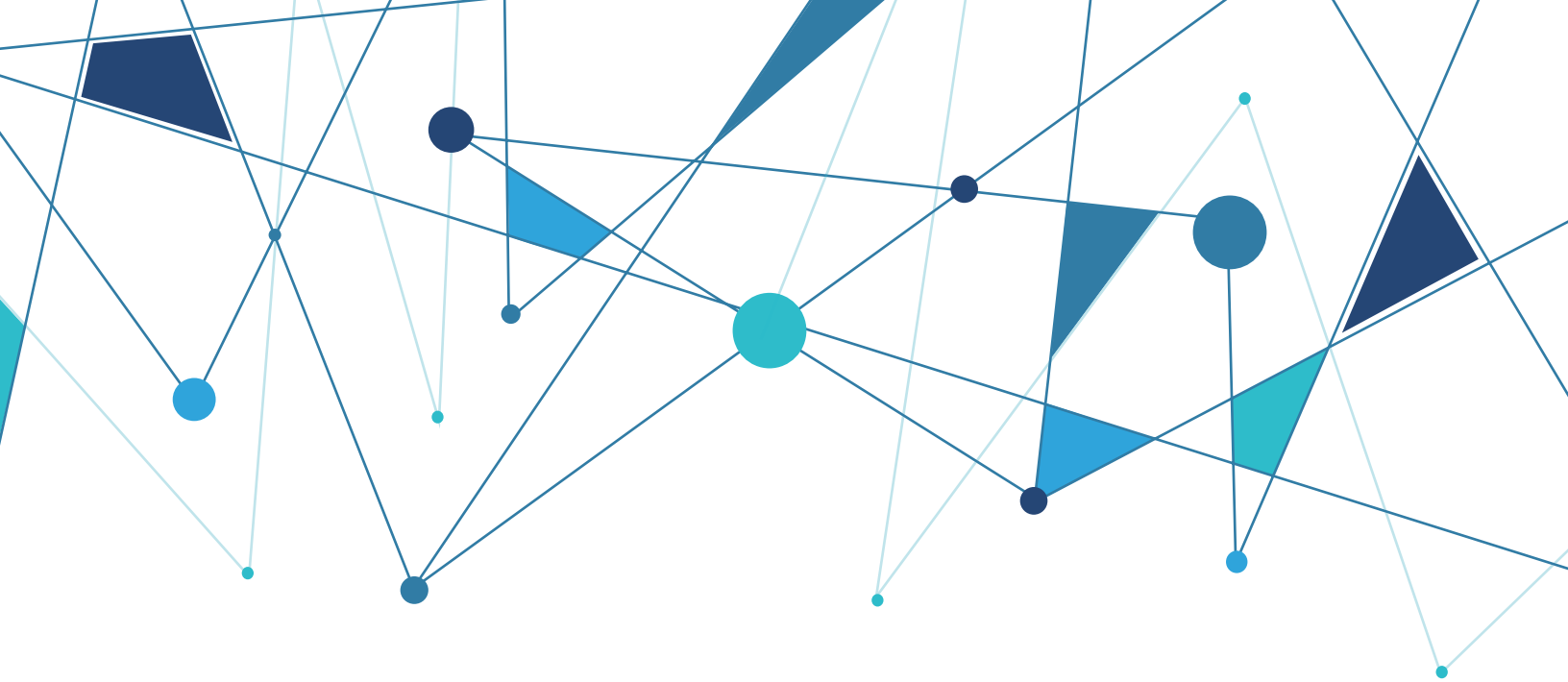


Critical Success Factors for an Effective Cloud Skills Development Program

BreakFree Solutions

Introduction and Background

IT leaders who have transformed their IT operating models don't subscribe to the idea of organic culture shifts when it comes to the aspect of people change. Instead, they view people change as primarily a skills development challenge. A challenge that needs to be solved by investing in existing talent and resources. If new processes have been designed and a solid cloud strategy has been implemented, then people need to develop the new skills required to effectively realize that cloud strategy and execute those new processes. By looking inward and investing in their existing talent, IT leaders avoid issues caused by talent shortages and existing expertise leaving. The creation of a cloud-native skills development program ensures the sustainable institution and ability to scale the new DevOps operating models required by cloud and digital.

Unfortunately, there is a massive gap of concrete, valuable information regarding the people aspect of change. Much of what has been written about people change is far too consumed with bottom-up culture shifts or how forcing change isn't the answer. That's just not enough for enterprise IT and talent development leaders who are facing resistance to change.

BreakFree Solutions has been helping countless client teams develop critical skill sets required for a DevOps and cloud-based operating model. We've formalized how we approach skills development throughout all client engagements in the form of the **BreakFree Cloud-Native Skills Development Framework**. One of the most impactful components of our framework is the institution of a cloud-native skills immersive learning program that allows our clients to internally develop the technical talent needed to sustainably build and operate cloud-based workloads with DevOps. Solving the talent shortage with internal talent is the key to scaling a cloud and DevOps operating model, while maintaining the required delivery velocity.

The following are the seven BreakFree-established critical success factors for implementing a cloud-native skills development immersive learning program:

Real Work:

Developing and enabling skills to execute in the real world involves doing real work.

Structured Accelerated Environment:

The program needs to be extremely structured from a day-to-day activity perspective.

Appropriately Timed and Distraction Free:

Outside distractions that hinder the immersive nature of the program need to be minimized.

Optimal Physical and Logical Environments:

Physical and logical environments are critical to the success of program implementation.

Highly Skilled Coaches:

Technical-skilled coaches are necessary for managing all of the immersive learning program's moving pieces.

Invested Participation through Prerequisites:

Prerequisites and training ensure participants meet a minimum knowledge standard before entering the program.

Dedicated Program Administration:

The program requires dedicated administration, coordination, and oversight.

In-Depth Examination of Immersive Learning Program Critical Success Factors

Real Work

At the foundation of the immersive learning program is real work. In terms of the program, we define real work as cloud-native workload development efforts and building platforms that enable development teams to deploy cloud-native workloads to production.

Real work is necessary for developing real skills and enabling individuals to execute on a given technology and its processes in the real world. Lab and training exercises are theoretical, and while they're useful in some contexts, developing real skills involves actual engineering work and delivering production-grade deployments. Therefore, the work done during program's duration needs to have a tangible output that's measurable, and most importantly, impactful for the organization.

Structured Accelerated Environment

The immersive learning program needs to be extremely structured from a day-to-day activity perspective, and the activities also need to be planned out well in advance. With less time spent on daily planning and organization, the focus is solely on technical skills development.

The day-to-day structure and schedule should also reflect the idea that repetition-based learning is necessary for developing skills in an accelerated and compressed time frame. Whether it's Agile work management, technical skills development, or even working on a team, take the skill participants are looking to develop, and break it down into activities. These activities need to be performed on a regular basis, usually daily, to successfully execute the skill. Then, determine the best approach for increasing the occurrence of those activities.

The following are two examples of repetition-based learning activities that are typically used in immersive learning programs. **Accelerated scrum** features sprints done in two-day iterations instead of the usual two weeks, which helps enhance work management skills. **Mobbing** and **Pairing** are great activities for learning cross-functional team building skills.

Appropriately Timed and Distraction Free

Participants should prepare to be in the immersive learning program for an extended period of time. Previously, we've seen programs last anywhere between six to 24 weeks. Therefore, participants, leadership, and the organization itself should ensure there is a plan in place to minimize outside distractions that hinder the program's immersive nature, which is essential to the program's success. Set an expectation for when and how to tackle tasks and work that exist outside of the program to avoid immersion disruption. An extended and distraction-free learning environment helps put participants on the path to being highly capable cloud and DevOps resources.

Optimal Physical and Logical Environments

Environment is critical to the success of the immersive leaning program because of its hyperfocus on executing real work and developing skills as a group. This means the program should be meeting in person and have the proper physical and technical attributes. Adequate space for team breakout sessions, equipment such as desks and whiteboards, and areas for quiet, independent study are mandatory. Additionally, technical attributes such as WiFi connectivity, power outlets, and an HDMI projector are also a must.

Appropriate access and cloud infrastructure requirements need to be in place before the program even begins. Avoid time spent on accessibility issues. At times, working through enterprise processes or systems is a desired skill, but for most situations we've been exposed to, obtaining the proper access and logical environments before the program's start is highly beneficial.

Highly Skilled Coaches

The coach function of this program should primarily be made up of real technical experts who are actively engaged in DevOps and cloud delivery. We recommend setting up a rotational coaching strategy where senior resources take turns as coaches and establish common coaching best practices as a group of senior resources. If your scale does not allow for dedicated coaches, supplementing coaches with third party resources on temporary engagements might be the best option. Our BreakFree Special Ops teams have experience coaching immersive learning programs and are regularly engaged as temporary coaches in our clients' programs.

Invested Participation through Prerequisites

It's important to confirm participants in the program have enough knowledge to show up on day one with an understanding of basic cloud and DevOps principles, and learn how to apply that knowledge. The program relies on prerequisites and training to ensure participants meet a minimum standard of knowledge for these concepts. Outside of ensuring participants are skilled enough to execute real cloud-native based work, pre-training and prerequisites confirm that program participants are motivated, self-sufficient, and have the aptitude to succeed.

Participants in the immersive learning program need proper mentorship to ensure completion of the necessary training and knowledge prerequisites essential to program success. Coaches should make themselves available and offer support during the pre-training and prerequisite period because some participants will likely need direct assistance to ensure knowledge obtainment and prerequisite completion. This assistance can come in the form of one-on-one mentorship, dedicated online training and research, and more.

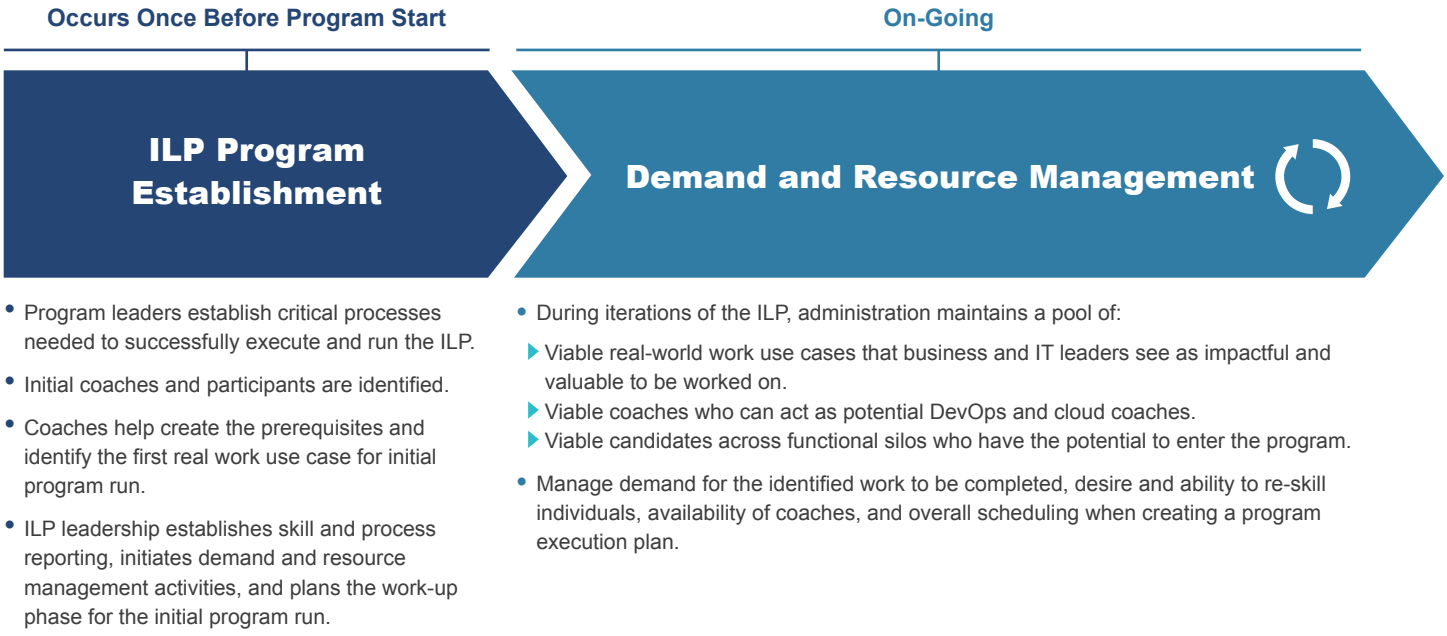
Dedicated Program Administration

With a program of this nature, there are a number of different moving parts. Program administrators need to identify and communicate training requirements and knowledge prerequisites to participants, ensure the correct environments for program execution, confirm program coaches meet the correct criteria for facilitation, and more. Therefore, there is a need for dedicated program administration, coordination, and oversight. Not only do dedicated administrators ensure the moving pieces are properly aligned for program success, but administrators will have ownership over the program's continual improvement as more sessions are offered over time.

Critical Success Factors Workflow Diagram

Successfully implemented programs tend to follow a similar workflow. While each organization requires some customization, in general, a well-executed immersive learning program will follow a similar workflow as pictured below. This diagram is an example and not the only viable answer. However, it works as a starting point when combined with the critical success factors detailed above to establish an organization-specific immersive learning program.

Immersive Learning Program (ILP) Workflow



Conclusion

The immersive learning program is the most critical piece of the **BreakFree Cloud-Native Skills Development Framework**. There's a massive talent shortage when it comes to cloud-native skills sets, and the best IT leaders already know that growing talent internally is key to achieving the velocity to complete in today's tech landscape. By following the seven critical success factors highlighted in this insight report and instituting an immersive learning program, organizations can start to build effective cloud-native engineers and architects from the ground up.

As previously stated, the immersive learning program is only one component of the **BreakFree Cloud-Native Skills Development Framework**. BreakFree offers a target operating model workshop for creating an actionable plan for shifting your operating model including people, processes, and tools, that's tailored to your specific organization. Schedule your workshop today by reaching out to us at BreakFreeSolutions.com.

About BreakFree Solutions

BreakFree Solutions is a diverse team of IT experts with skills in cloud-native design, cloud architecture, infrastructure automation, software development, continuous deployment, security, DevOps, and Agile delivery. BreakFree offers practical cloud, DevOps, and automation professional services to enterprise companies. BreakFree's services are based on clearly defined positions on the future of IT operations shaped by our decades of real-world experience.