The OpsRamp Cloud Skills Survey

From A Cloud-Native Skills Gap To A Full-Blown Crisis
Executive Summary

Transitioning To a New World

The adoption of cloud-native technologies like microservices, containers, service mesh and declarative APIs in production is on a fast trajectory to transform modern IT operations. But this transformation has also shifted the roles and responsibilities of the overall IT organization from specialists what Gartner calls versatilists.

Versatilists are professionals who can synthesize relevant information and produce results within an overall business context. The days of emphasizing a particular specialty are being replaced by teams who can focus on how technology can fuel business goals in a broader, revenue-generating context.

This is a critical next step in enterprise digital transformation. Based on our findings, most modern enterprises aren’t ready. In fact, they haven’t been ready for a while, and it’s time for IT teams to ramp up on digital innovation by hiring, developing and retaining the right talent.

The enterprises are transforming. Their cultures and skill sets, however, have not kept up.
Why Is This A Concern?

60% of our survey respondents report that a **majority of their mission-critical IT services are either built or run using cloud-native architectures**. With the increased adoption of hybrid cloud and software-defined infrastructures, enterprise IT teams will need the right talent that can deploy and maintain dynamic, flexible and cost-effective digital services.

In fact, IDC’s [Worldwide CIO Agenda 2019 Predictions](#) shows that 30% of high-demand roles for emerging technologies will remain unfilled through 2022. IDC believes that the only way for CIOs to tackle the skills gap is to invest in “effective skills development and retention.”

**HOW MANY APPLICATIONS ARE CURRENTLY BEING BUILT OR RUNNING IN THE CLOUD WITHIN YOUR ORGANIZATION TODAY?**
Welcome To The Cloud Skills Crisis

On any given day, job portal Dice.com lists over 14,000 available jobs with “cloud” in the title. The lack of a digital talent pipeline disrupts an organization’s ability to innovate and meet the goals of transformation initiatives at the strategic and tactical levels.

As consumer expectations and business complexity grow, the threat of digital disruption will only increase for industry incumbents. Third-party studies have shown that a lack of cloud computing expertise can cost enterprises as much as $258 million a year in lost revenues and slower innovation. As the mandate to transform legacy IT operations to cloud-native technologies only becomes stronger, the demand for the right talent will amplify.

Industry association CompTIA (2017) found that 81% of IT and business executives believe that their current IT staff can’t keep up given how fast the technology world is evolving. 93% also felt that huge chunks of their workforce are falling behind, leading to lower organizational productivity, profitability and speed to market.

*This isn’t just a skills gap. It’s a skills crisis.* Our report illustrates key findings which show how the skills crisis is hampering organizational productivity within modern IT operations teams.

**Methodology**

This survey was conducted through a third party with a total of 124 respondents. All respondents worked at the IT manager level or above, across IT operations, DevOps or Site Reliability Engineering teams. Enterprises surveyed had more than 500 employees.
The Crisis, Quantified
Here are the top four trends to pay attention to:

TREND #1
The Cloud Skills Gap Has Become A Cloud Skills Crisis.
The pressure to gain expertise and skills in cloud-native technologies has only increased over the last five years. DevOps, hybrid cloud and digitalization positions are available but difficult to fill. Here are the three leading insights from our survey:

**The Skills Deficit Is Real.** Digital transformation requires IT professionals who can combine new-age technology skills with a product mindset, strategic thinking and customer empathy.

IT practitioners report difficulty in finding qualified candidates with solid skills in DevOps/SRE (33%), multi-cloud management (24%) and cloud-native development (22%). No wonder then that DevOps specialists are top earners today, with annual median salaries for DevOps professionals touching $100,000 in the US.

**WHICH NEW IT SKILLS ARE MOST IMPORTANT TO YOUR ORGANIZATION CURRENTLY?**

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<tr>
<th>Skill</th>
<th>Respondents</th>
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<tbody>
<tr>
<td>DevOps and Site Reliability Engineering</td>
<td>33%</td>
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<tr>
<td>Multi-Cloud Monitoring and Management</td>
<td>24%</td>
</tr>
<tr>
<td>Cloud-Native Development and Maintenance</td>
<td>22%</td>
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<tr>
<td>Digital Business Support</td>
<td>11%</td>
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<tr>
<td>Artificial Intelligence and Machine Learning</td>
<td>11%</td>
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Talent Pipelines Are Not Matching Demand Patterns. 90% of hiring managers report that their digital skills gap is either somewhat big, quite big or huge. Nearly a third of respondents believe that the demand for cloud-native skills outpaces existing talent pools.

Meanwhile, 20% of respondents feel the skills shortage is leading to intense poaching, with qualified candidates choosing where and which projects they want to work on. To attract and retain IT pros, CIOs will need to provide challenging assignments, offer opportunities for learning and development and invest in a culture that recognizes and rewards high performers.

HOW BIG WOULD YOU CONSIDER YOUR ORGANIZATION'S SKILLS GAP IS?

<table>
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<tr>
<th>Skill Level</th>
<th>Respondents</th>
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<tr>
<td>Somewhat big: We can reskill our team to meet the demand</td>
<td>46%</td>
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<tr>
<td>Quite big: We will need to reskill and hire new specialists</td>
<td>38%</td>
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<tr>
<td>Not big: It's manageable without changing our current team</td>
<td>10%</td>
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<tr>
<td>Huge: We will need to invest in transitioning a majority of workforce</td>
<td>7%</td>
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It’s Not Easy Finding Top Talent. Further complicating things, 94% of IT decision-makers find that it’s somewhat difficult, difficult or very difficult to hire DevOps/SRE professionals, cloud-native developers and multi-cloud operators.

Organizations are struggling to manage and scale their digital business initiatives given how hard it is to find the right technology pros. A recent CareerBuilder survey concurs: 45% of all hiring managers are unable to fill much-needed positions due to a dearth of qualified talent.
And, You Will Need To Wait A While Before Onboarding Your Next Hire. 94% of IT leaders report that it takes longer than one month to recruit technology experts for their digital transformation projects. In a tight labor market, 25% of hiring managers find that it can take more than three months to find the right candidate.

Job site Glassdoor found that more than 260,000 unfilled technology jobs cost the US economy nearly $20 billion in 2017. Given the robust competition for digital talent, organizations should invest in cloud-related training and certifications for current IT staff, instead of only relying on external talent to address their skills gaps.

WHAT IS THE AVERAGE TIME IT TAKES YOUR ORGANIZATION TO FILL AN OPEN ROLE IN IT OPERATIONS, DEVOPS, SITE RELIABILITY ENGINEERING?

- Between one and three months: 69%
- Greater than three months: 25.8%
- Less than a month: 5.6%
TREND #2
The War For Cloud Talent Is Just Getting Started.
The digital economy is constantly throwing up new business and operating models that can disrupt the status quo and make your unique advantages obsolete. The reason IT organizations are paying top dollar for new digital talent and skills (as well as helping existing staff build cloud skills) is to meet and exceed fast-changing customer expectations.

**Attracting and Retaining Top Talent Will Need $$$**. Most organizations understand the critical need to invest in IT organizational talent for digital transformation. 97% of hiring managers confirm that their organizations are either somewhat willing (28%), willing (41%) or very willing (28%) to pay competitively for skilled IT professionals.

*HOW WOULD YOU DESCRIBE YOUR ORGANIZATION’S WILLING TO PAY COMPETITIVELY FOR SKILLED IT PROFESSIONALS?*

- Willing: 41%
- Very willing: 28%
- Somewhat willing: 27%
- Not willing: 3%
Future-Proof Your Organization By Investing In Your Staff. 37% of IT executives plan to invest in skill development programs for existing staff as a way to embrace automation and foster a digital culture. When it comes to development and training programs, organizations are investing in a combination of internally run programs (62%), self-directed training (61%) and external education programs (53%).

IT leaders can learn from organizations like AT&T, Accenture and FINRA, who have dealt with skills shortages by partnering with leading universities for in-demand skills and helping veteran employees build the right skills with live assignments.

WHAT TRAINING DOES YOUR ORGANIZATION OFFER TO WORKERS WHO WANT TO IMPROVE THEIR IT SKILLS?

- Internally run continuing education programs: 62%
- Support for self-directed education and training: 61%
- External education programs with established private facilities: 53%
- Sponsored education through colleges and universities: 40%

RESPONDENTS
TREND #3

Managed Service Providers: Your Trusted Partners For The Digital Era.
Managed service providers (MSPs) bring a deep understanding of digital business strategies, cloud-native architectures and value-added skills. Enterprises are working with service providers to enhance their digital quotient until these skills gaps can be sufficiently addressed.

**Drive Digital Agility With Seasoned Technology Experts.** With Gartner projecting that [80% of enterprises will shut down their entire datacenter operations by 2025](https://www.gartner.com/en), organizations will need to work with specialized providers to build and manage scalable and agile digital infrastructures.

Managed service providers will play a critical role in helping enterprises evolve their core digital capabilities at a rapid pace. 77% of respondents are partnering with MSPs to transform their legacy processes, meet changing consumer demands and seize disruptive opportunities.

### HOW DO YOU PLAN TO WORK WITH MANAGED SERVICE PROVIDERS TO OVERCOME THESE SKILLS GAPS?

- **Increased insourcing:** Shift workloads from MSPs to reskilled internal teams
  - 23% of respondents

- **A hybrid model:** Shift certain specialized workloads to MSPs and reskill internal teams for business-critical services
  - 58% of respondents

- **Increased outsourcing:** Work with MSPs more to fill-in the specialized gaps
  - 19% of respondents
TREND #4

The Biggest Casualty Of The Cloud Skills Crisis? Culture.
Perhaps the biggest effect of the skills crisis is on organizational culture. IT leaders polled in this survey state that preconceived attitudes of their employees aren’t changing as fast as the trajectory of the organization. Unless veteran IT staff gain the core competencies to succeed in a digitally driven environment, organizations will not be able to confidently navigate their digital landscape.

**Embrace A Digital Mindset.** Most respondents cited “unwillingness to change pre-existing attitudes toward technology” as a key concern for implementing digital business strategies. “Stifling innovation” and “limiting abilities in adopting new technologies” were the next biggest challenges, underscoring the need to invest in cultural change for successful enterprise transformation.

**HOW ARE THESE SKILLS GAPS CHALLENGING YOUR ORGANIZATION?**

- Unwillingness to change pre-existing attitudes towards technology - 3.99
- Stifling overall innovation - 3.69
- Limiting abilities in adopting new technologies - 3.44
- Limitations in workforce productivity - 3.37
- Limiting abilities in adopting new methodologies - 3.27
- Increased disruption in IT services - 3.24
CONCLUSION

Here are three key takeaways from our Cloud Skills Survey so you know how to innovate and lead in a world of digital disruption:

1. **Start Addressing The Skills Deficit Right Now.** Given that most enterprises workloads will migrate to the cloud, IT leaders need to make the right investments to enhance their digital DNA. Smart talent acquisition strategies will include bringing in external expertise (create a strong employer brand to attract the right professionals), training and development for existing staff (don’t relegate your current team to managing legacy services) and partnering with solution providers (decide which skills you want to keep in-house versus the ones you would like to outsource).

2. **Invest In Your Current Teams.** Employees with years of experience in running datacenters can definitely reskill for the cloud era. Existing IT staff bring a strong understanding of enterprise business models, the ability to think systematically about new digital offerings and the right context for delivering compelling customer experiences. With proper training and certification opportunities, existing IT staff can be your competitive edge for driving digital innovation.

3. **Accelerate Digital Transformation With The Right Cultural Foundation.** The best way to transform from a digital laggard to a digital leader is to invest in cultural practices that help your employees navigate rapid change. IT executives will need to build the right strategies, tactics, technologies and processes that make it easier to launch agile experiments and help employees embrace a culture of constant innovation.

The future isn’t coming. It’s here. And it’s time to hire, build and retrain for it.

New processes, however, don’t emerge out of thin air. They come from both the adoption of new technologies, like cloud-native approaches, but also from an appropriate and parallel shift in attitudes and skill sets. Modern enterprises looking for competitive advantage need to commit to digital transformation at the process, technology, and people levels. Innovation depends on it.
About OpsRamp

OpsRamp enables IT to control the chaos of managing their hybrid IT operations and act like a service provider back to the business.

Built in the cloud, the OpsRamp service-centric AIOps platform drives total visibility across hybrid infrastructures, offers complete multi-cloud infrastructure monitoring and management of business-critical services, and optimizes services through automation and integration with ITSM and DevOps tools.