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EXECUTIVE SUMMARY

BUSINESSES WORLDWIDE have been severely impacted by the global COVID-19 pandemic, forcing them to rethink how employees can perform their everyday duties without coming into a physical office. The forced shift from onsite to remote work required organizations to act quickly and do business through online meetings, digital collaboration tools and cloud applications, as well as put in place infrastructure and services to support workers at their home offices. New patterns of communication, collaboration and staff and team management had to be established almost overnight.

Under less than optimal conditions, organizations nevertheless rose to the challenge, making numerous decisions on the fly, building out infrastructure, creating processes and setting policies around remote work to help employees quickly be productive and keeping business running. Of course, they had no other choice — no one knew how long the mandatory lockdowns and social distancing requirements would last, and when or if employees would return to the office. Months later, many organizations anticipate much of their workforce will continue working remotely rather than returning to the office.

In normal situations, organizations would not have made these kinds of remote-work decisions so hastily. Ordinarily, companies would have devoted significant time and resources to plan carefully before making decisions about shifting to a remote workforce. They might have looked elsewhere in the organization to learn from teams and job functions that already had a demonstrated track record of remote work success, like software developers. Many individual developers and entire software teams have successfully worked remotely for a number of years, and their insights and experience would normally provide valuable lessons for organizational leadership.

To better understand the long-term impact of a decentralized workforce on software development and delivery, Accelerated Strategies Group conducted research into how organizations and software teams are adapting to remote work. Between August 24th and September 4th, 2020, Accelerated Strategies Group collected data from 347 participants in organizations from less than 1,000 employees to large enterprises of over 5,000 employees. Roles were split between leadership and individual contributor roles. Further, respondents were located in a total of 23 countries and regions. Finally, they also represented 20 different industry verticals.

This research set out to answer three important questions:

1. Were software teams in the organization working remotely prior to COVID-19 restrictions?

2. Have the use and importance of remote work tools and applications changed since COVID-19 restrictions were implemented?

3. In what ways has COVID-19 informed and changed organizations' ability to create software?

Accelerated Strategies Group's research revealed several interesting trends.

The most striking is the shift in business and IT priorities and how that shift will potentially impact business, software development and other IT priorities. The majority of respondents (63.3%) noted that digital transformation objectives have significantly or somewhat increased in priority. Other priorities, including business automation (61.6%) and the need for investment in creating contactless services (60.1%) have significantly or somewhat increased.

COVID-19 conditions also have raised a sense of importance on other priorities: 51.75% of respondents say they increased their focus on DevOps initiatives and 52.25% increased their progress on migration to cloud service providers (AWS, Azure, Google Cloud Platform). Also worth noting is growth in companies' DevOps and Agile adoption, with 46.24% of respondents stating they are using cross-functional teams, 55.64% practicing daily stand-up meetings and 43.23% automating tasks.

The research also revealed some other important trends brought about by the pandemic; most notably the pandemic's impact on software team productivity. A majority of respondents, 59.49%, said their software teams are significantly or somewhat more productive than pre-pandemic. And 42.6% of respondents said it has become somewhat easier to complete their work tasks in a timely fashion. However, feedback concerning respondents' ability to manage unproductive distractions was mixed: 39.7% said managing these distractions was somewhat or much easier, 36.36% said it was somewhat or much harder and 23.48% said they'd had no change in their ability to manage these distractions. In general, the data showed that software teams are working more closely with product management, project management, operations and security. We saw unexpected results when it came to how the pandemic impacted some of the most common challenges software teams face. For example, 61.37% of respondents found it easier to work across time zones, with 39.71% indicating it is easier to work with staffers on different continents and 37.18% of respondents noted that it was easier to leverage "gig" or flexible part-time staffers to accomplish goals.

Respondents also provided insight into the potential negative impact of the newly-minted remote workforce on productivity. More than one-third (38.6%) of respondents said there was no change, 27.58% of respondents indicated that teams were slowed down significantly or somewhat and 33.83% said things moved along significantly or somewhat faster.

While COVID-19 has had a traumatic impact on the well-being and health of respondents' and those around them, including individual loss of life, and unprecedented financial impact on businesses and economies globally, the shift to remote work gives us some insights into how business may look as they continue to adapt and recover. Software teams and other business functions have benefited from the shift to remote work in the short term, though it remains to be seen if these benefits are sustainable.

This research can serve as a valuable resource to companies as they adapt and adjust their future business strategies and plan for a post-COVID-19 future. Whatever the "new normal" looks like, these massive shifts in priorities, business strategies, software strategies and global and local economic recovery conditions make clear that the new normal is likely to be anything but normal, at least as we knew it prior to the COVID-19 pandemic.



ACCELERATION AND SHIFT OF DIGITAL PRIORITIES

COVID-19 has accelerated business strategies, both planned and unplanned. Shifts in customer demands and revenue pressures have had a dramatic impact on business priorities since early 2020.



A majority of organizations increased the priority of and investment in digital transformation projects.



Rapid changes in customer expectations brought the need for contactless service delivery to the forefront.



Automation is also seeing significant increased investment as companies look for efficiencies.





POSITIVE IMPACT OF THE SHIFT TO REMOTE WORK



Companies are clearly interested in how the organization is adjusting to remote work. Over half reported their organization increased focus on measuring the productivity of remote workers.

FOCUS ON MEASURING PRODUCTIVITY

Organizations are increasingly adopting DevOps and Agile principles. At the top of the list, as indicated by the number of responses, are daily stand up meetings, asynchronous communications, and cross-functional teams.

29.7%

36.09%

43.23%

46.24%

ADOPTION OF DEVOPS AND AGILE PRINCIPLES

PROJECT MANAGEMENT	54.61%
OPERATIONS	49.82%
PRODUCT MANAGEMENT	46.86%
SECURITY	38.01%
EXECUTIVE LEADERSHIP	25.46%
MARKETING	14.39 <mark>%</mark>
HR	13.65 <mark>%</mark>
FINANCE	9.5 <mark>9</mark> %
NONE OF THE ABOVE	11.44 %

Increasing collaboration across the enterprise is fundamental to DevOps and Agile methodologies. The shift to necessary remote work requirements encouraged software teams to work more closely with colleagues from product management, operations, project management, security and with executive leaders.

COLLABORATION



DEVELOPER Productivity

Since the onset of COVID-19 forced remote work, more than half (59.5%) of respondents have seen software developer productivity improve at their companies. Only 12.4% saw a decrease in productivity.

SPEED OF Software Delivery

While more than half of software developers saw productivity improve, the impact the rest of the organization is having on software delivery speed is mixed.







TOP FIVE REMOTE WORK TOOLS SINCE COVID-19



Online Meeting Services



Collaboration Tools

Software development teams already use a number of open source, SaaS and hosted solutions when working remotely. When asked to rank tools that facilitated their daily work, a mix of general collaboration, project and software tools made up the 5 most critical remote work tools for software development teams.



Collaborative Document Editing



Cloud Task-Driven Project Management



Cloud or Hosted Source Code Management

SINCE COVID-19, IS REMOTE WORK EASIER OR HARDER?

Since implementing remote work policies due to COVID-19, employees note benefits and drawbacks to remote work policies. Some areas improved, including scheduling meetings and completing deliverables, while some others, like balancing work with meetings, became more difficult. A significant number of remote workers found managing unproductive distractions easier, but an almost equal number found it more difficult.





HOW REMOTE WORK CHANGES OUR FUTURE

Can organizations put the remote work genie back in the bottle? A strong majority of remote workers (64.4%) anticipate they will work remotely three or more days per week, or permanently, once COVID-19 restrictions are lifted. Only 12.7% said they anticipate returning on-site to an office location full-time.



THE ACCELERATED STRATEGIES GROUP VIEW

OUR RESEARCH brings together the unique intersection of accelerating digital priorities, the rapid adaptation to remote work and the experiences of remote software development during the global COVID-19 pandemic.

As leaders of product and software teams, we recognized the opportunity to examine the influence of one discipline already experienced in remote work, software developers, on the broader organization. The ability to create full functioning, local development environments on developers' laptops and workstations, amplified by cloud-based development tools, workspaces and workflow pipelines, equipped developers to work remotely pre-COVID-19. Many developers are comfortable working from coffee shops, flex workspaces, at home and even during travel.

Our central questions were; has the rapid shift to remote work had a positive or negative impact to software delivery? Have the experiences of software teams influenced the larger organization in their transition to remote work?

As the broader organization rapidly adapted to remote work, our research suggests a positive impact on organizations and their employees' ability to deliver software effectively. The use of Agile and DevOps methods, such as stand-up daily meetings, cross-functional teams and self-assigned tasks, are seeing growing adoption in the organization. Teams shifted to more collaborative work and increased use of information-sharing tools. And while a majority report increases in productivity for developers and the organization generally, the impact on the speed of software delivery is mixed during this immediate, disruptive period of changing priorities and working conditions.

Given the significant depth and breadth of disruption from COVID-19, its economic fallout and the measurable acceleration of digital strategies, it is significant that much of the data shows organizations have adapted and adjusted quickly. It's our view that much of these changes are likely to remain, both due to workers personal preferences as well as productivity, efficiency and cost benefits to businesses.

Though questions remain as to the shape and scope of the "new normal" of how and when we work, it's likely that the new normal will be anything but normal.

SURVEY DEMOGRAPHICS

Accelerated Strategies Group conducted research into the impact of remote work while organizations were grappling with work-from-home and business reopening policies during Q3 of 2020. We gathered a total of 347 responses to our survey.



Survey responses came from a global cross-section of 23 countries and regions including US/Canada/Mexico (41.9%), EMEA (34.3%), India (12.8%) and South America (4.9%).

Respondents hold a variety of roles and come from a broad range of organizational sizes:



ABOUT THE AUTHORS



MITCH ASHLEY is a renowned strategist, speaker, advisor and technology executive. Mitchell has led successful IT, SaaS, and cybersecurity transformations. He's led multiple teams in developing and bringing to market successful online services, cybersecurity, software, and networking products and services.

Mitch serves as CEO Accelerated Strategies Group where he leads a team of preeminent experts in digital transformation, DevOps, cloud-native, and cybersecurity. In this role, Mitch works with companies to align digital transformation and technology strategies to achieve disruptive goals and high impact results. Mitch is in high demand as a speaker and is widely followed online on his popular *Accelerated Strategies* and *DevOps Chats* podcasts, *Analyst Corner* commentary, and *interviews* on the highly popular *TechStrong.TV* streaming video program where he engages with the top digital and tech leaders from across the industry.

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ABOUT THIS REPORT

This report is based on extensive research conducted by Accelerated Strategies Group to assess the current state of remote work and software development in a COVID-19 world. Accelerated Strategies Group fielded a survey and conducted one-on-one interviews with key industry leaders and experts to gather and further refine the data on which this report is based. This research was commissioned by *CloudBees*.

ABOUT ACCELERATED STRATEGIES GROUP

ACCELERATED STRATEGIES GROUP is out to democratize access to industry expertise and knowledge. Our expert analysts leverage their experience-based knowledge to deliver insightful, intelligent and actionable information about digital transformation, DevOps, cloud-native and cybersecurity to IT and product organizations. Like open source software, we widely share our work products for free because we believe Knowledge Wants To Be Free.

Contact Accelerated Strategies Group at *info@accelst.com* and get more great research, reports, commentary, videos and more at *https://accelst.com*.