Agents of Transformation 2022:

Innovating in the Experience Economy

Foreword

When we conducted our first Agents of Transformation report, it was impossible to imagine the extent to which the world would change in the next four years. The way we live, work, and consume is forever transformed, and the pandemic has elevated the status of technology leaders within their organizations.

Digital transformation is blurring the lines between business strategy and IT operations. Almost every company and organization interacts with customers and end users via web and mobile applications, and it's the responsibility of technology experts to meet soaring expectations for always-on, secure, and exceptional digital experiences.

Maintaining the digital mandate in this new Experience Economy represents a fundamental shift in the role of technology experts. Teams now deal with growing complexity and volumes of data from across the technology stack and must integrate a massively expanding set of cloud-native services with existing on-premises systems and tools.

This report reveals the emergence of a new class of elite Agents of Transformation. These leaders are looking to better understand how issues in their respective domains impact the total experience of users and applications, adapting to accelerated change with solutions that positively affect the overall business.

At Cisco, we're helping bring teams together to deliver outstanding application experiences to your customers and end users. We know you need to see more to solve more, so you can put the focus on business impact, decisions, and outcomes.

Our goal is to meet you where you are in your digital journey with solutions that empower observability, security, and performance for both cloud-native and traditional applications. We're committed to giving technology experts the tools and resources they need to deliver innovation and become true Agents of Transformation.

LIZ CENTONI
Chief Strategy Officer and GM, Applications

Executive Summary

In 2018, Cisco AppDynamics revealed the emergence of a group of elite technologists who were at the forefront of innovation, with a burning desire to make a difference and leave a lasting legacy.

These Agents of Transformation possessed the skills, vision and ambition to deliver positive and sustainable transformation within their organizations and beyond. And they operated within businesses that provided a supportive and collaborative environment, with access to the tools and insights they needed to fulfill their potential.

At the time, only 9% of technologists around the world were operating as Agents of Transformation but the report concluded that many more would need to step up to reach the pinnacle of their profession in order for their organizations to drive transformation and compete in the market.

The new norm - rapid innovation and spiraling complexity
In the four tumultuous years since the first study was conducted, technologists have faced seismic and unforeseen challenges to meet rapidly evolving customer needs.

They've operated under the most extreme pressure throughout the global pandemic as the pace of innovation accelerated almost overnight and IT teams battled to enable remote and hybrid work, to move critical operations online and to digitize huge swathes of their organization. On average, digital transformation projects were delivered three times faster than ever before.
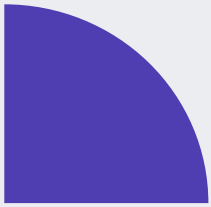
Even now, as life returns to normal in many countries, the speed of change is not relenting. Technologists find themselves operating in a new environment where they're continually expected to deliver more innovation with greater intensity. Many are having to re-imagine the delivery of their applications to enable the new world of hybrid work. And alongside this, technologists are having to contend with soaring complexity and unfathomable volumes of data across the technology stack. They're having to integrate a massively expanding set of cloud-native services with existing on-premise technologies.

Becoming an Agent of Transformation in 2022
Against this backdrop, this report revisits the very idea of what it means to be an Agent of Transformation in 2022 - what it takes to reach the summit of the IT profession, how technologists can accelerate their own journey and why it still matters so much.

The research explores how technologists have reacted and adapted to the monumental changes they've experienced over the last four years and what they've learnt along the way. It examines how the skills, qualities and resources required to become an Agent of Transformation have evolved during the pandemic and will continue to change in a cloud-native future. And it asks what we can learn from these elite professionals that are re-defining the role and contribution of technologists today.

As the world finally emerges from the pandemic, it will be down to these Agents of Transformation to deliver the innovation required to shape a successful and sustainable future in an uncertain and rapidly changing world.

Research methodology
AppDynamics has undertaken comprehensive global research, from board-level directors and CIOs, through to senior and mid-level IT management.

This research entailed:
- Interviews with 1,150 IT professionals in organizations with a turnover of at least $500m (with the exception of Colombia, where organizations with a turnover of at least $100m were included in the sample)

- Interviews were conducted in 13 markets — Australia, Brazil, Canada, Colombia, France, Germany, India, Japan, Mexico, Singapore, United Arab Emirates, United Kingdom and United States

- Respondents worked across a range of industries, including IT, financial services, retail, public sector, manufacturing and automotive, and media and communications

- All research was conducted by Insight Avenue in April and May 2022

Note: Totals in charts/tables for single coded questions sometimes add up to more or less than 100% due to rounding.
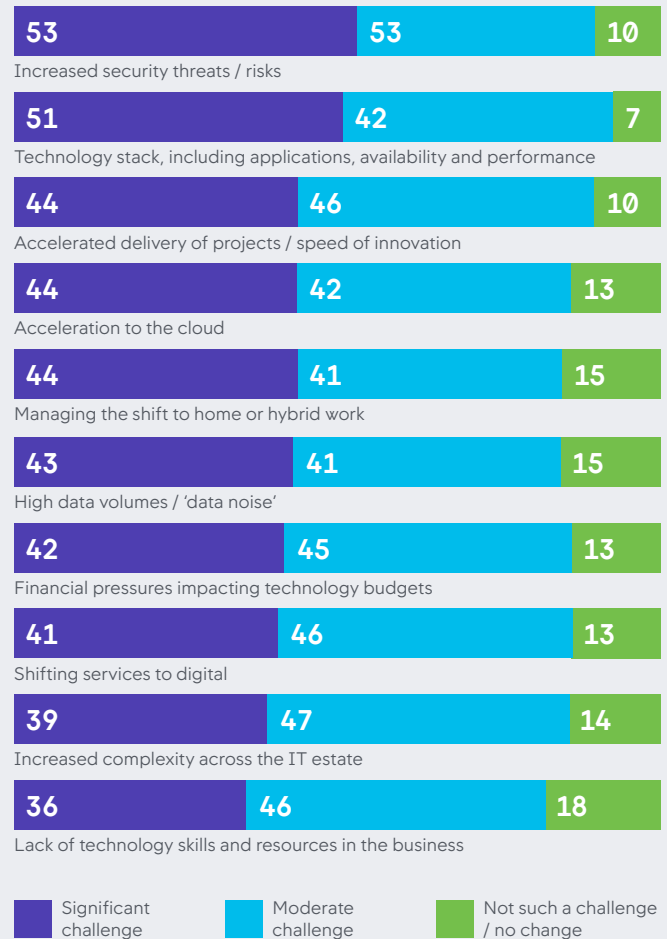
Technologists have thrived in response to the pandemic

The pandemic has fundamentally - and forever - changed the make-up, priorities and drivers of technologists across the world.

88% of respondents state that the last four years have changed what it means to be a technologist, and altered what is required to deliver seamless digital experiences in a world of hybrid work.

Heightened security threats, managing an increasingly fragmented IT stack (including applications' availability and performance) and the accelerated move to cloud computing have all tested the skills and resolve of technologists. Indeed, the shift to a cloud-native approach to applications represents arguably the most significant trend within IT over the last few years, bringing with it heightened levels of complexity and a need for fresh mindsets and new skill sets within the IT department.

Biggest changes and challenges within IT over the last four years (in percent)

	Significant challenge	Moderate challenge	Not such a challenge / no change
Increased security threats / risks	53	53	10
Technology stack, including applications, availability and performance	51	42	7
Accelerated delivery of projects / speed of innovation	44	46	10
Acceleration to the cloud	44	42	13
Managing the shift to home or hybrid work	44	41	15
High data volumes / 'data noise'	43	41	15
Financial pressures impacting technology budgets	42	45	13
Shifting services to digital	41	46	13
Increased complexity across the IT estate	39	47	14
Lack of technology skills and resources in the business	36	46	18

What specifically have you experienced as the biggest changes and challenges within IT in the last four years?

Across all sectors, technologists have had to adapt quickly in response to these changes, performing new tasks and pushing themselves beyond their comfort zone.

Fortunately, almost all technologists feel that they have stepped up to meet new challenges and many have thrived in this environment. The research reveals a strong sense of pride amongst technologists about how they have helped their organizations to navigate through the pandemic. And many believe that these experiences and the lessons they've learned along the way will stand them in good stead for the rest of their careers.

Overall, technologists are feeling more confident in their ability to take on new tasks, more empowered to make decisions and more influential within the business than they were in 2018.

Importantly, technologists are also positive about their organization's response to the challenges of the last four years.

90%
of technologists report a sense of pride in what they've achieved over the last four years and optimism about their future as a technologist.

74%
believe that their experiences over the last four years have accelerated their careers.

88%
state that they now consider themselves to be business leaders.
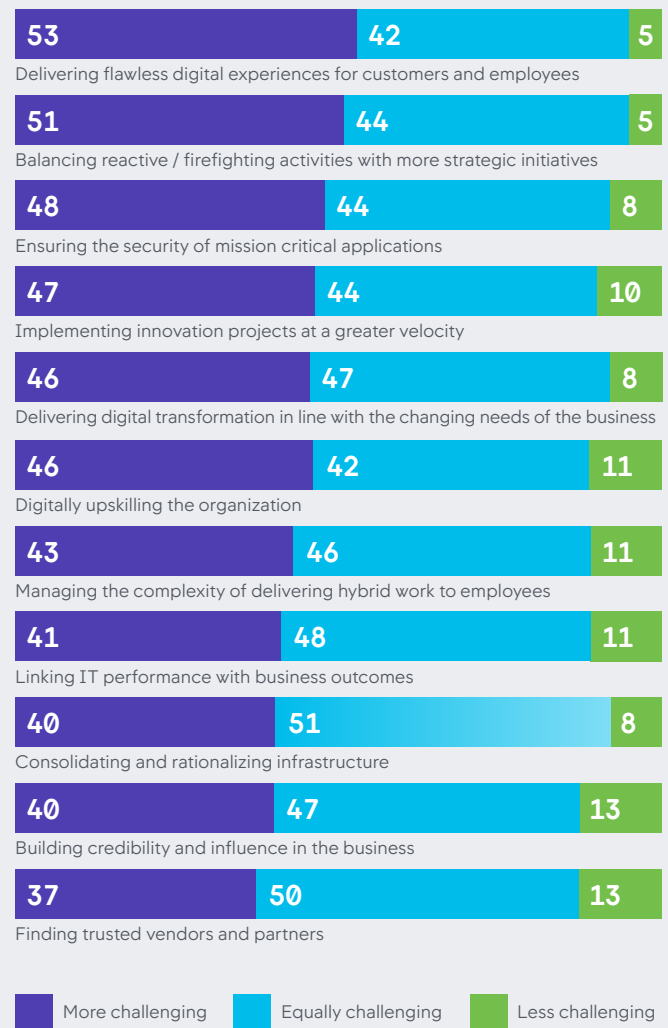
A harder job with greater pressure

Technologists state that almost every aspect of their jobs is now more difficult than it was in 2018.

More than anything else, technologists report that delivering seamless digital experiences for customers and employees is now more challenging than it was prior to the pandemic. This is closely followed by ensuring the security of mission critical applications and implementing innovation projects at increased speed.

Alongside this, technologists also state that it is now harder to manage the complexity of delivering hybrid work to employees and to link IT performance with business outcomes.

But not only has it become more difficult for technologists to deliver innovation while maintaining incredible digital experiences, they're having to find answers to these new challenges while operating under the most intense pressure.

The heightened challenges facing technologists today (in percent)

53	42	5
Delivering flawless digital experiences for customers and employees

51	44	5
Balancing reactive / firefighting activities with more strategic initiatives

48	44	8
Ensuring the security of mission critical applications

47	44	10
Implementing innovation projects at a greater velocity

46	47	8
Delivering digital transformation in line with the changing needs of the business

46	42	11
Digitally upskilling the organization

43	46	11
Managing the complexity of delivering hybrid work to employees

41	48	11
Linking IT performance with business outcomes

40	51	8
Consolidating and rationalizing infrastructure

40	47	13
Building credibility and influence in the business

37	50	13
Finding trusted vendors and partners

■ More challenging　　■ Equally challenging　　■ Less challenging

Do you see the following as more or less challenging in your role than four years ago?

Across the board, technologists report that they're facing greater pressure than they were four years ago, from senior leaders within their organization, from their own IT teams, from technology partners and from customers. Whatever their industry, job role or level of seniority, technologists are feeling the heat.

So while the mood within IT departments remains largely positive, many technologists are understandably feeling exhausted and drained after the last two years. More than half (56%) of all global technologists admit that they feel disillusioned and burnt out, and more than three quarters say that they still feel under pressure to deliver innovation more quickly.

Tellingly, 65% of technologists state that they are feeling overwhelmed by complexity and data. This suggests that technologists still don't have unified visibility of IT availability and performance across an increasingly complex and fragmented IT environment. And this is making it difficult for them to cut through data noise to make informed decisions and prioritize their actions in the right places.
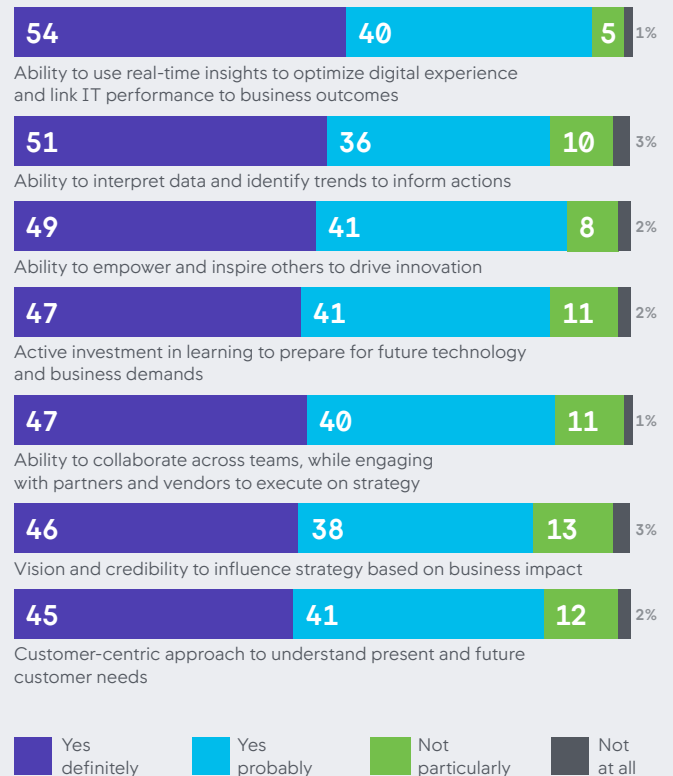
The evolution of the Agent of Transformation

The research reveals how the make-up of an Agent of Transformation has evolved considerably over the last four years, both in terms of the skills and qualities technologists need to display and the resources and environment they need to thrive.

Agents of Transformation have had to adapt to the new world of hybrid work as the pandemic has radically altered working patterns and technology requirements within organizations. And, at the same time, many have also had to shift to a cloud-first application strategy based on cloud-native solutions. As a result, elite technologists have needed to demonstrate a wider range of skills and qualities.

Agents of Transformation have become more outcome oriented over the last four years, using data and real-time insights to drive decision-making and optimize digital experiences, linking technology performance to business outcomes. Alongside this, they've increasingly been required to use critical thinking to interpret data, identify trends and inform actions.

Skills & qualities that have become more important for Agents of Transformation to demonstrate in the new world of hybrid work (in percent)

54	40	5	1%

Ability to use real-time insights to optimize digital experience and link IT performance to business outcomes

51	36	10	3%

Ability to interpret data and identify trends to inform actions

49	41	8	2%

Ability to empower and inspire others to drive innovation

47	41	11	2%

Active investment in learning to prepare for future technology and business demands

47	40	11	1%

Ability to collaborate across teams, while engaging with partners and vendors to execute on strategy

46	38	13	3%

Vision and credibility to influence strategy based on business impact

45	41	12	2%

Customer-centric approach to understand present and future customer needs

- Yes definitely
- Yes probably
- Not particularly
- Not at all

What skills and qualities do you think have become more important for Agents of Transformation to demonstrate in the new world of hybrid work?

The research explored how technologists are faring as they attempt to develop these skills and qualities that are now so essential to becoming an Agent of Transformation.

On the whole, technologists feel that they are strongest when it comes to driving innovation and demonstrating the impact of technology performance on the business. However, 88% recognize that they need to develop their capabilities in at least one area, the most common being shaping and influencing strategy, facilitating collaboration across the business and becoming a champion for innovation.

As well as needing to develop their own skills and qualities, the research also exposes a number of organizational factors that have become more important for Agents of Transformation to be successful and drive positive change.

These elite technologists now need to operate within a culture that welcomes the best technology talent and in an organization that has a clear vision, with technology at its heart. They also need access to technology budgets that can flex and align with areas that have the biggest impact on business outcomes.

Most critically, Agents of Transformation must be able to monitor and observe all technical areas across their IT stack and directly link technology performance to business outcomes. 93% of technologists state that this is important to operate as an elite technologist.

84%
of technologists report that the skills and qualities that define an Agents of Transformation have evolved over the last four years.

87%
believe that, as technologists, they now need to constantly reinvent themselves to stay relevant.

84%
state that the resources that they need from their organization to become an Agent of Transformation have evolved over the last four years.

Four years on - The five typologies of technologist in 2022

10%
Agents of Transformation

↑ up from 9% in 2018*

Elite technologists with all the skills required to drive transformation, operating in innovation-driven organizations.

The last four years
- Recognized the need to reinvent themselves to stay relevant
- Took responsibility for their own development

2022 priorities
- Positively impacting how their organizations recover from the pandemic
- Creating a positive legacy

38%
Digital Pioneers

↑ up from 25% in 2018*

Highly skilled technologists on the cusp of reaching the pinnacle of their profession.

The last four years
- Proud of the impact they have delivered for their organizations
- Heightened focus on strategic planning and business outcomes

2022 priorities
- Adopting a more customer-centric mindset and becoming more collaborative
- Ensuring access to technology budgets that can flex to align with business impact

13%
Frustrated Innovators

↓ down from 25% in 2018*

Technologists with a strategic, outcome-focussed approach but held back by the environment in which they operate.

The last four years
- More collaborative and strategic in their approach
- More focussed on using data and insights to optimize digital experience and link IT performance to business outcomes

2022 priorities
- Effecting cultural change in order to access mentors and cutting-edge tools
- Shifting focus from firefighting to strategic priorities

24%

Untapped Heroes

⬆ up from 15% in 2018*

Task-driven technologists focussed on operational running of IT systems, working in organizations with a strong culture of innovation.

The last four years
- Faced immense pressure as a result of increased security threats and acceleration of cloud initiatives
- Feel that experiences have accelerated technology career - more empowered and confident

2022 priorities
- Cutting through complexity and data noise to have bigger strategic impact
- Finding mentors and developing skills to overcome fear of failure

15%

Disillusioned Dreamers

⬇ down from 26% in 2018*

Hard-working technologists focussed on managing IT performance, with little time, opportunity or support to drive strategic transformation

The last four years
- Operated under pressure to enable shift to home or hybrid work and acceleration to cloud
- Organization still stuck in reactive, firefighting mode

2022 priorities
- Balancing day-to-day reactive activities with ambition to be involved in more strategic initiatives
- Taking a more customer-centric approach and becoming a champion for innovation

*2018 stats taken from the Agents of Transformation report, published 8th November 2018.

A steeper climb to reach the summit of the IT profession

Overall, the research finds that 10% of global technologists are now performing as Agents of Transformation. This figure is up slightly from the 2018 study when 9% of technologists were operating at the highest level.

While this may appear to represent slow progress, this figure needs to be seen in the context of the last four years and the evolving skill sets and resources that are required to become an Agent of Transformation.

Against a backdrop of constant change and unrelenting pressure to deliver innovation and seamless digital experiences, the journey to the summit of the IT profession has undoubtedly become more complex, demanding and dynamic over the last four years.

Technologists are having to contend with increasing expectations from customers and employees, while also needing to keep pace with rapid technical advancements and manage soaring complexity across a dynamic and fragmented IT environment. Perhaps most significantly, they are having to re-imagine their applications in a cloud-native environment.

The research highlights a number of factors that are blocking technologists' path to becoming an Agent of Transformation, including both individual and organizational challenges.

The biggest barrier is the sheer amount of time that technologists are having to spend firefighting IT issues. They're unable to take a proactive and strategic approach to innovation because they're struggling to identify issues and understand where they should be prioritizing their efforts. They can't link technology performance to business outcomes and don't have the real-time insights required to make a positive impact.

However, the research reinforces the critical need for technologists to overcome these challenges and rise to the top of their profession over the coming years. The implications for any organization that fails to recruit or develop enough Agents of Transformation are severe - an inability to deliver innovation at speed, damage to customer and employee experience, and financial losses.

The biggest barriers to becoming an Agent of Transformation

- Lack of time / too much time spent 'firefighting'

- Lack of motivation or feelings of exhaustion

- Outdated skills and difficulty keeping up with latest technologies / approaches

- Rigid company structure / processes

- Still largely in reactive mode and not thinking long term

- Difficulty linking technology performance to business outcomes

66%

of technologists report that it is more difficult to be an Agent of Transformation now than four years ago.

Technologists are optimistic and excited about the future

97%

of technologists are excited about the prospect of becoming an Agent of Transformation.

85%

of technologists would like to work alongside more Agents of Transformation.

While there has only been a marginal change in the proportion of technologists operating as Agents of Transformation, the research reveals that significant numbers of technologists have made strong progress on their journey to becoming an elite technologist.

In particular, 38% of technologists are now operating as Digital Pioneers. These Agents of Transformation 'in waiting' possess many of the skills, qualities and resources required to reach the summit of the IT profession. In the 2018 study, only 25% of technologists were operating as Digital Pioneers and this increase is hugely encouraging, suggesting that many more technologists are now in a position to take the final step and become an Agent of Transformation over the next 12 months.

Technologists see a wide range of benefits in becoming an Agent of Transformation, from learning new skills and working with cutting edge technology through to inspiring colleagues and creating a positive legacy.

Encouragingly, technologists are taking ownership of their journey to becoming an Agent of Transformation, with 87% accepting responsibility for their own development and impact on their organization.
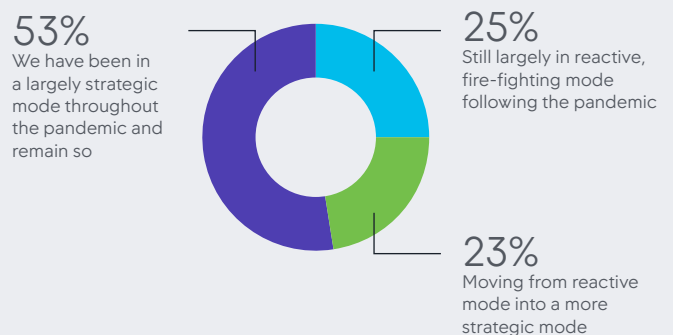
In order to progress towards becoming an Agent of Transformation, technologists believe that they and their organizations now need to shift towards a more proactive and future-looking approach. After more than two years in firefighting mode, reacting to rapidly changing business and customer needs during the pandemic, it is time for organizations to adopt a more long-term, sustainable strategy.

A majority of technologists (53%) report that their IT department is now in the process of moving from a reactive mode into a more strategic mode, but 23% state that their IT department is still largely firefighting as a result of the pandemic.

And at a personal level, technologists are also experiencing a need to balance day-to-day operational responsibilities with more strategic, innovation-focussed work.

Moving from reactive to proactive modes within the IT department

53%
We have been in a largely strategic mode throughout the pandemic and remain so

25%
Still largely in reactive, fire-fighting mode following the pandemic

23%
Moving from reactive mode into a more strategic mode

How would you characterize the IT department in your organization now following the challenges of the pandemic?

How technologists are balancing operational and strategic priorities

59%
Operational

41%
Strategic

Thinking about how you spend your time at work, in % terms how is your time currently split between operational / reactive activity and strategic / innovative activity?

A laser focus on re-imagining applications

Across the board, there is a recognition amongst global technologists that organizations need to re-imagine applications over the next 12 months to meet the changing needs of end users (both customers and employees). This is particularly the case as most organizations continue to enable hybrid work for their employees, beyond the pandemic.

This shift to modern application stacks will require organizations to focus investment on a whole host of areas, from application security and application availability and performance, through to building a resilient and agile IT infrastructure and linking IT performance to business outcomes.

The pandemic has proved beyond all doubt that digital experience has become mission-critical. Organizations in all sectors are defined by their ability to deliver world-class digital experiences to customers and employees at all times.

As a result, more than anything else, Agents of Transformation need unified visibility of their IT environment to manage and optimize availability and performance across every corner of their IT estate. And they need to connect technology performance data with real-time business metrics to pinpoint the IT issues that really matter most and prioritize their actions to deliver maximum business impact.

Top six areas for investment in order for applications to meet customer and employee needs over the next 12 months

- Application security
- Application and digital service availability and performance
- Building a resilient, agile infrastructure
- Linking IT performance to business decision-making
- Taking a digital first approach for all services
- Observing cloud-native applications and infrastructure

77%

of technologists believe it will be important to invest in application security over the next 12 months to meet customer and employee needs.

71%

believe their organization will need to focus investment on observing cloud-native applications and infrastructure.

84%

report that the need to maintain the performance of business applications is now more important than ever.

85%

state that full-stack observability is core to sustainable transformation and innovation in their organization.

Conclusion

As organizations look to move on from the firefighting and uncertainty of the last two years, they will need to deliver innovation at an ever greater speed and scale. Business leaders know that success now lies in their ability to reimagine how applications are delivered and to provide customers with more intuitive, personalized, seamless and secure digital experiences.

88%

of technologists believe that the pandemic has accelerated the need for more technologists to become Agents of Transformation.

83%

state that organizations that focus on attracting and developing Agents of Transformation will become innovators within their industry.

Organizations therefore need more of their technologists to step up to become Agents of Transformation, to build a sustainable future in the new world of hybrid work.

In order to achieve this, organizations must create an environment in which technologists have the support, leadership and inspiration to try new things and push the boundaries. And it becomes imperative to ensure technologists have the unified data and insights they need to optimize IT performance and availability at all times.

For technologists, there is a great deal to be proud of after the last four years. They have stepped up to meet this once-in-a-lifetime challenge, adapting and growing under the most extreme pressure to guide their organizations through the pandemic.

But while the immediate impact of the pandemic may be fading, technologists can't afford to stop now; they need to continue to push themselves to reach the summit of their profession. This means learning new skills and adopting new thinking within a cloud-native world; and it means embracing new tools and technologies to drive technology performance and innovation.

Wherever they are in their career, and whichever typology best describes their current status, technologists need to build on the incredible momentum they have worked so hard to achieve. So much progress has been made on the journey to Agents of Transformation over the past four years but there is still work to be done.

About AppDynamics

Cisco AppDynamics is a leading provider of Observability and
Application Performance Monitoring technology. AppDynamics
helps customers observe what matters inside and beyond their IT
environments. Combined with the power of Cisco, AppDynamics
enables organizations to deliver exceptional user experiences by
centralizing and correlating data into contextualized insights of
critical business metrics — providing them with the power to prioritize
actions based on business needs.

To find out more about full-stack observability with business context
from AppDynamics, click here.

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