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2020
**STATE OF
APPLICATION
SERVICES
REPORT**
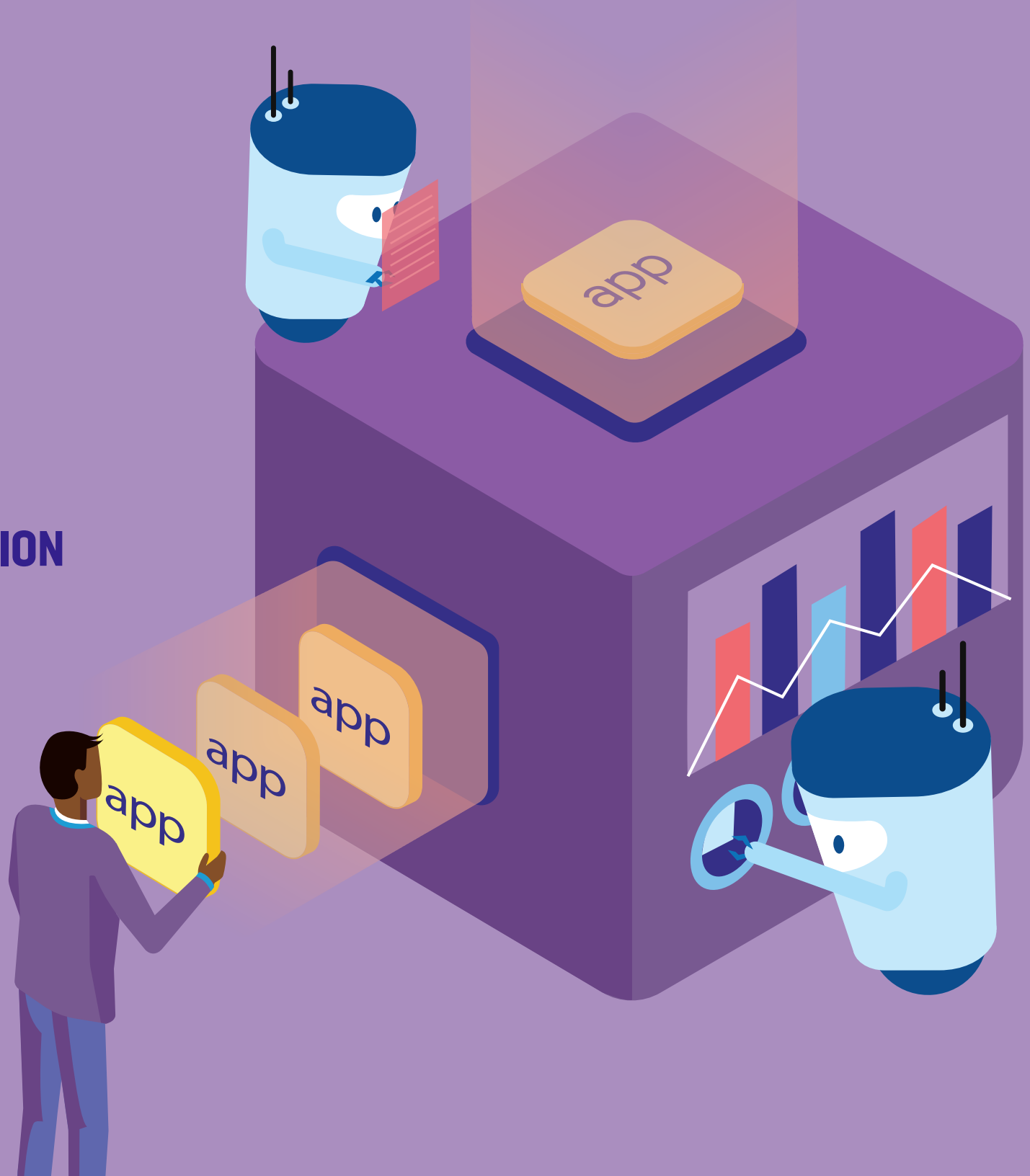
INTRODUCTION

For our sixth annual survey, we heard from more than 300 respondents within the mobility and fixed-line market segments—across a range of company sizes and roles—about the challenges and opportunities presented by the ongoing process of digital transformation. Their responses provide a unique view of the trends shaping the application landscape and how organizations in the telecom market are transforming to meet the ever-changing demands of the digital economy.

# Demographics of telecom respondents who provided feedback to the State of Application Services 2020 survey.

WE ASKED:

How many full-time employees work at your organization, worldwide, including all locations?

14%
11%
7%
15%
13%
40%

■ 10,000+   ■ 500–999
■ 5,000–10,000 ■ 101–499
■ 1,000–4,999   ■ Under 100
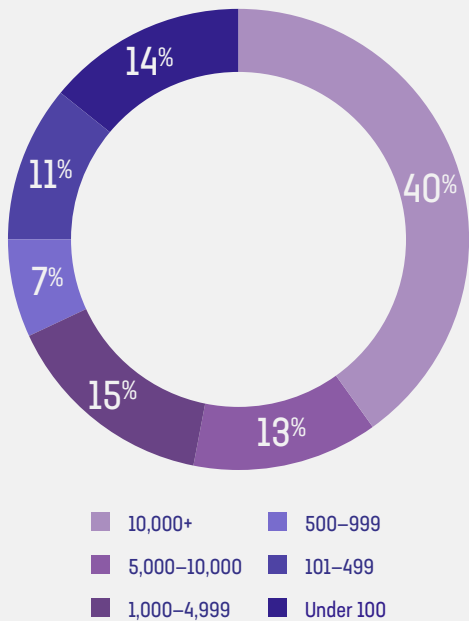
WE LEARNED:

Telecom respondents typically are employed by the largest organizations.
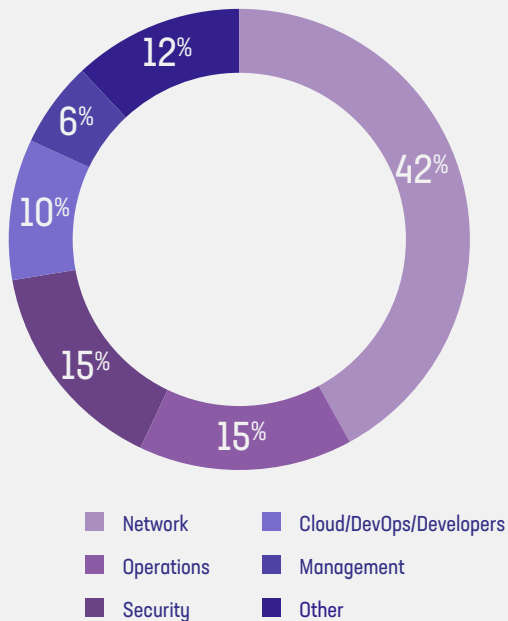
FIGURE 01: Telecom respondents by number of employees

WE ASKED:

In which region do you reside?

20%
30%
50%

■ Americas   ■ Asia Pacific   ■ EMEA
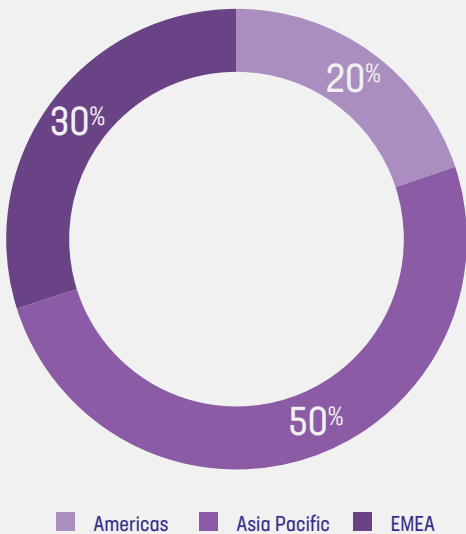
WE LEARNED:

Asia Pacific respondents represent half of the telecom survey population.

FIGURE 02: Telecom respondents by geography

WE ASKED:

Which of the following best describes your job title or focus?

12%
6%
10%
15%
15%
42%

■ Network   ■ Cloud/DevOps/Developers
■ Operations   ■ Management
■ Security   ■ Other

WE LEARNED:

Telecom respondents primarily hail from network roles.
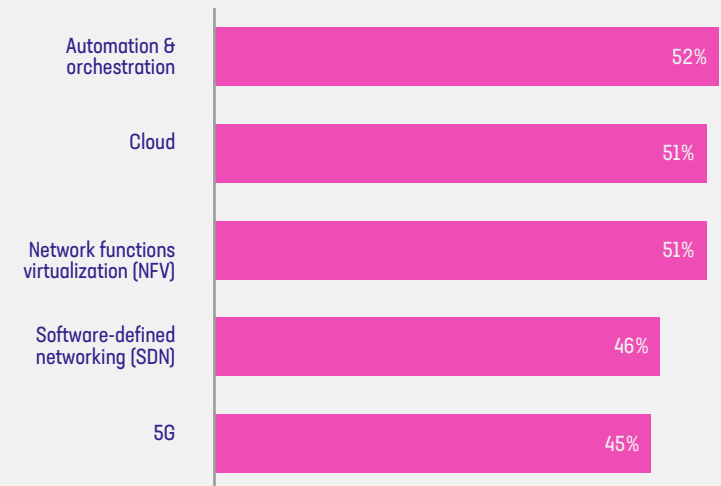
FIGURE 03: Telecom respondents by role

01

91% of telecom providers are executing on digital transformation by adopting cloud, automation and orchestration, and NFV.

Telecom providers are preparing for 5G by adopting cloud, automation and orchestration, and software-defined infrastructure across all network elements. The telecom respondents' adoption of automation and orchestration can be viewed as proof they are moving full steam ahead in meeting their goals of reducing CapEx and OpEx while increasing the speed of innovation.

WE ASKED:

Which technology trends do you think will be strategically important for your organization in the next 2-5 years? Select all that apply.

Trend	%
Automation & orchestration	52%
Cloud	51%
Network functions virtualization (NFV)	51%
Software-defined networking (SDN)	46%
5G	45%

WE LEARNED:

Telecom respondents are utilizing automation and orchestration to create the new 5G network.
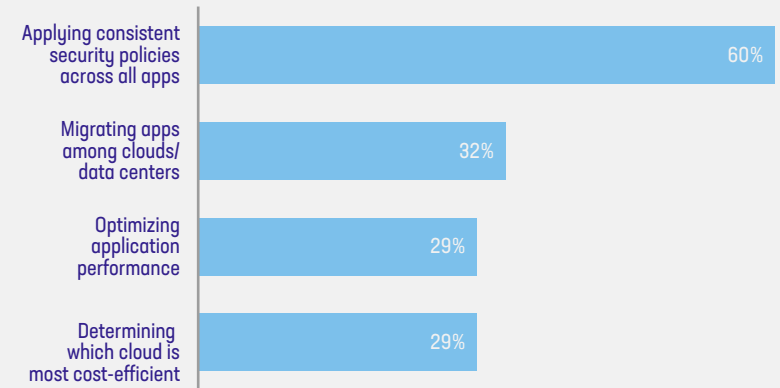
FIGURE 04: Telecom strategic trends

02

90% of telecom providers are operating in a multi-cloud environment, with security concerns top of mind.

Telecom respondents tailor their use of cloud deployments to the unique requirements each of their applications serve. With, on average, more than 1,000 applications to support, security remains a challenge, particularly across global and regional locations. Two-thirds of respondents reported that providing consistent security across multiple clouds was important or very important.

WE ASKED:

As you think about managing applications in a multi-cloud environment, what part of do you find the most challenging?

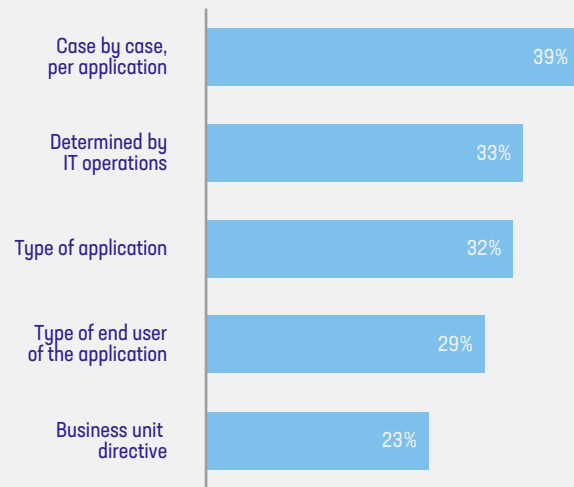| Challenge	%
Applying consistent security policies across all apps	60%
Migrating apps among clouds/ data centers	32%
Optimizing application performance	29%
Determining which cloud is most cost-efficient	29%

WE LEARNED:

Applying consistent security policies is the top concern for telecom respondents.

FIGURE 05: Telecom multi-cloud challenges

WE ASKED:

How does your organization decide which type of cloud is best for each application?

Case by case, per application	39%
Determined by IT operations	33%
Type of application	32%
Type of end user of the application	29%
Business unit directive	23%

WE LEARNED:

Telecom respondents tailor their use of cloud infrastructure to the needs of their business.

FIGURE 06: Best cloud for the app

03

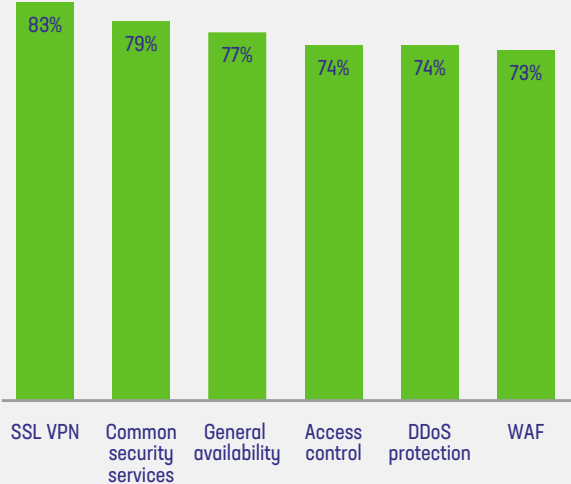## 61% of telecom respondents executing on digital transformation agree that the worst thing they could do is deploy an application without security.

The existence of digital transformation projects influences the types of application services deployed. This year, telecom respondents who are executing on digital transformation told us they are prioritizing application services that provide application and network security as well as access control. Additionally, they are looking for characteristics of their app services that easily integrate with their existing and future architectures.

Which of the following application services does your company currently deploy in an on-premises data center/private cloud or the public cloud. Select all that apply.

| SSL VPN	Common security services	General availability	Access control	DDoS protection	WAF
83%	79%	77%	74%	74%	73%

WE LEARNED:

Security and access control dominate the list for telecom respondents.

FIGURE 07: App services currently deployed based on existence of digital transformation project

WE ASKED:

When you are deploying application services, please select the most important characteristics of the offering.

42%	32%	27%	25%	24%
Security	Ease of Use	Automation	Cost	Performance
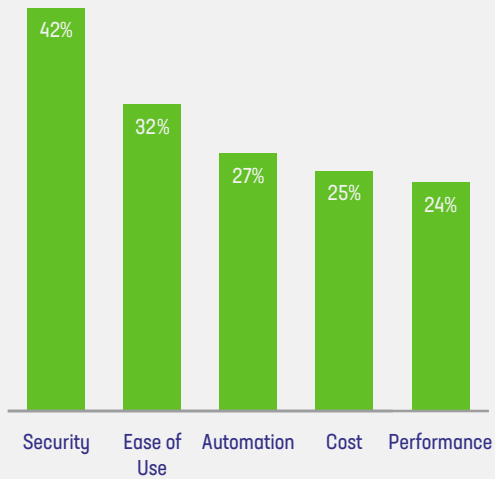
WE LEARNED:

Service providers demand security and ease of use to foster trust and accelerate time to value.

FIGURE 08: Primary characteristics desired of app services

CONCLUSION

Telecom respondents are executing on digital transformation by strategically implementing technologies such as automation and orchestration to increase the speed of innovation while reducing capital and operational expenses. They are utilizing application services to deliver high-quality customer experiences that will drive engagement. By focusing on security services, they aim to maintain a trusted relationship with their customers—which will help grow the business and deliver the digital experiences that customers demand.

To learn more about the evolution of applications and related services from a global perspective, get the full report at www.f5.com/stateofappservices.