2020 STATE OF APPLICATION SERVICES REPORT

TELECOM (MOBILITY & FIXED-LINE) EXECUTIVE SUMMARY
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?

**WE LEARNED:**
Telecom respondents typically are employed by the largest organizations.

**FIGURE 01:** Telecom respondents by number of employees

- 10,000+ employees: 14%
- 5,000–10,000 employees: 11%
- 1,000–4,999 employees: 15%
- 500–999 employees: 7%
- Under 100 employees: 13%

**WE ASKED:**
In which region do you reside?

**WE LEARNED:**
Asia Pacific respondents represent half of the telecom survey population.

**FIGURE 02:** Telecom respondents by geography

- Americas: 50%
- Asia Pacific: 20%
- EMEA: 30%

**WE ASKED:**
Which of the following best describes your job title or focus?

**WE LEARNED:**
Telecom respondents primarily hail from network roles.

**FIGURE 03:** Telecom respondents by role

- Network: 42%
- Cloud/DevOps/Developers: 12%
- Operations: 15%
- Management: 15%
- Security: 12%
- Other: 10%
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.

<table>
<thead>
<tr>
<th>Technology Trend</th>
<th>% Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automation &amp; orchestration</td>
<td>52%</td>
</tr>
<tr>
<td>Cloud</td>
<td>61%</td>
</tr>
<tr>
<td>Network functions virtualization (NFV)</td>
<td>61%</td>
</tr>
<tr>
<td>Software-defined networking (SDN)</td>
<td>46%</td>
</tr>
<tr>
<td>5G</td>
<td>45%</td>
</tr>
</tbody>
</table>

**WE LEARNED:**
Telecom respondents are utilizing automation and orchestration to create the new 5G network.
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?

**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?

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

WE ASKED:
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.

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.

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
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.