Digital Transformation in Latin America is Speeding Forward

2020 was filled with newly remote work, education, and consumer activities driven by the COVID-19 pandemic. As the results of the F5 State of Application Strategy survey make clear, the global emergency also accelerated digital transformation in Latin America and around the world.
Digital transformation typically progresses through three distinct phases—task automation, digital expansion, and AI-assisted business—although organizations may have projects in all three phases at once. In Latin America, 84% of respondents across industries say they have a digital transformation project in place.

Significant progress is also shown in other key survey findings:

- Applications continue to be modernized rapidly to improve the customer experience, with APIs as a method of choice.
- Security concerns are driving growth in cloud and SaaS deployments, making multi-cloud availability an imperative.
- Latin American decision-makers consider Secure Access Service Edge (SASE) their top strategic trend over the next 2–5 years.
- Nearly two-thirds of Latin American respondents plan to protect their applications with AI before the end of 2021.
- In the future, telemetry will be key for applications that can adapt to changing conditions—but for now, nearly everyone is missing insights they need.

About the survey
This, our seventh annual survey, drew more than 125 responses from individuals in Latin America who make IT decisions for organizations in a broad variety of nations and industries. The technology, telecommunications, financial services, and government sectors were particularly well represented. Respondents from companies of all sizes participated, with 34% in organizations with fewer than 100 employees, and 11% in those with more than 10,000 employees. Where this summary compares Latin American results with the overall results of the global survey, the overall results are based on responses from more than 1,500 decisionmakers around the world and across industries.
Applications continue to be modernized rapidly, with APIs as a method of choice

Latin American organizations continue to rapidly modernize applications to better deliver the fast, efficient digital experiences their customers expect. APIs are the single most popular method, used by 34% of respondents. As a result, more organizations than ever operate both modern and traditional application architectures as they leverage their existing infrastructure investments while creating modern workloads and interfaces that provide customers with more seamless digital experiences.

This architectural complexity is likely to extend into the foreseeable future. Given this reliance on APIs to provide connectivity, an API-first application security and delivery strategy becomes necessary to help manage the expanded attack surface.

Application Modernization

We asked:
What methods are you using to modernize applications? Select all that apply.

We learned:
Most Latin American respondents use two methods or more, and APIs are king.

<table>
<thead>
<tr>
<th>Method</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Adding a layer of APIs to enable modern user interfaces and/or participate in ecosystems, but not refactoring</td>
<td>34%</td>
</tr>
<tr>
<td>Adding modern application components to enable modern user interfaces and/or participate in ecosystems, but not refactoring</td>
<td>28%</td>
</tr>
<tr>
<td>Refactoring (modifying the application code itself)</td>
<td>23%</td>
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<tr>
<td>Moving to public cloud (lift and shift) but not modernizing</td>
<td>19%</td>
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Security concerns are driving growth in cloud and SaaS deployments

The percentage of applications deployed in the cloud is expanding. Both Infrastructure as a Service (IaaS) and Software as a Service (SaaS) account for this growth, which is driven largely by the increasing size, sophistication, and frequency of attacks. Efforts to stay ahead of attackers frequently require resources beyond those available on premises. As a result, Latin American respondents call SaaS their number 2 strategic trend.

In this expanding universe of distributed applications, the edge can be seen simply the next step outward. More than three-quarters (78%) of respondents in Latin America are already using, or have plans to use, the edge. As with survey participants from around the world, those in Latin America cite improving application performance and analytics as their top two edge use cases.

SASE is the top strategic trend.

The benefits of edge deployments—and the drawbacks, including security and compliance—align with those of multi-cloud strategies in general. Accordingly, Latin American decision-makers consider Secure Access Service Edge (SASE) their top strategic trend over the next 2–5 years. As organizations pursue SaaS and edge strategies while maintaining on-premises data centers, the complex and distributed ecosystems that result will intensify IT management challenges.

Top Trends

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.

We learned:
SASE narrowly beat SaaS as the top trend, with AIOps close behind.
Protecting applications is an imperative in Latin America

Concerns about security are undoubtedly one reason respondents in Latin America are slightly more likely to have implemented an API security solution than the global average, with 61% currently using one or expecting to deploy one soon—despite having fewer published APIs, on average, than their counterparts elsewhere. Latin American respondents are also somewhat more likely to use Kubernetes Ingress control, with 64% reporting that they already use it or plan to before the end of 2021, compared to 59% globally.

Organizations in Latin America are also looking to AI and machine learning to help protect their applications. Nearly two-thirds of respondents (61%) expect to do so before 2021 is over. Such measures may explain the confidence they have in their ability to protect their applications: 76% report feeling confident or very confident, slightly higher than the 72% global average.

The right application security and delivery technologies can also help protect applications. In Latin America, 59% of decision makers say their IT architectures dictate which of those technologies must be in place. With applications increasingly distributed, multi-cloud availability has become an imperative, and respondents named it their top purchase criterion, ahead of both cost of ownership and ease of use. This distinguishes Latin American decisionmakers from global respondents, who named multi-cloud availability their third priority, behind ease of use and cost.

Application Security Through AI

We asked: Are you using currently using and/or planning to use AI and/or machine learning to protect your applications?

We learned: 61% of Latin American respondents expect to be using AI before the end of 2021.
This high regard for multi-cloud availability likely reflects the importance Latin American decisionmakers place on preventing fraud and protecting customer data. Consistency across multi-cloud architectures is critical for protecting customer data and the business—which is an even greater imperative in Latin America than worldwide. hind ease of use and cost.

In the face of evolving threats, organizations that deploy machine learning, AI, and the right application security and delivery technologies will be better positioned to protect service reliability and customer data as prerequisites to the achievement of business goals.

**Multi-cloud availability is now the top criterion for application security and delivery technologies.**

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**The Security Imperative**

We asked:
Please rank the importance of application services in terms of business impact.

We learned:
Even more than their global counterparts, Latin American respondents overwhelmingly look to application security and delivery technologies to help prevent fraud and protect customer data.
Organizations have tools but lack insights and skills

As digital transformation proceeds, more telemetry will be required to deliver the insights needed to protect applications while enabling the experiences customers demand. A small majority (56%) of respondents in Latin America say they have the tools they need to report on the health of high-priority business applications. But nearly everyone struggles to obtain critical insights. Globally, 95% of respondents reported missing insights, particularly when it comes to the root causes of application incidents or performance degradation.

Efficiently putting those insights to work poses challenges, too, even with the help of automation, because a skills deficit is a concern for nearly all—96%—of respondents in Latin America. A lack of the skills needed to manage vendor-specific automation and orchestration tools is the top concern expressed by more than half of those respondents. They report significant gaps in the know-how to work with other toolsets and APIs, too.

Architectural complexity and application proliferation will only increase, exacerbating existing issues with the availability of tools, skills, and needed insights. But only organizations with sophisticated, real-time application data can achieve the insights they need into application performance and threats—and then automate responses that enable those apps to adapt across platforms, keep assets secure, and satisfy customers to promote business growth. That makes multi-cloud application security and delivery technologies more crucial than ever, because without them, other efforts to improve service and the customer experience can’t yield maximum returns to the bottom line.

We asked:
In which areas do you believe your organization has a skills deficit in automation and orchestration? Select no more than 3.

We learned:
Nearly everyone lacks vital skills for automation.

- Vendor-specific automation and orchestration tools: 53%
- Toolsets (Terraform, Ansible, GitHub, GitLab, ServiceNow, etc.): 47%
- Working with APIs: 37%
- Languages used for templates and scripts: 36%
- Transforming processes into scripts/toolsets: 32%
- Cloud-provider tools and APIs: 23%
- We do not have a skills deficit with respect to automation and orchestration: 4%
Conclusion

The Heightened Pace of Digital Transformation is Unlikely to Slow

Latin American businesses, their employees, and their applications are increasingly dispersed—not only to support remote work but also to provide faster, more interconnected, and more efficient customer experiences. As with their counterparts around the world, organizations in Latin America are modernizing and innovating to deliver those digital experiences, and they’re increasingly relying on multi-cloud strategies to do so. Automation, AI, and focused security measures such as API solutions are helping protect customer data and business assets from fraud. Because Latin American respondents particularly value the role technologies can play in that protection, these trends will almost certainly continue.

Amid 2020’s unprecedented challenges and the rapid shifts organizations are making to respond, thrive, and grow, one truth stands out: It is no longer sufficient to think of applications and application security and delivery technology as merely part of an effective IT strategy. Applications have become so central to how we live, work, and interact that no business strategy today is complete without an application strategy—and for many organizations, the two may be nearly synonymous.