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Introduction

Digital Transformation Is Proceeding Steadily in Latin America
THE EIGHTH ANNUAL F5 survey on the state of application strategy today found digital transformation accelerating across industries and around the globe. With people everywhere now accustomed to digital interactions for activities ranging from grocery shopping to schooling to banking, their expectations for those experiences continue to rise. To remain competitive and relevant in the increasingly global marketplace, most organizations in Latin America are transforming their businesses to keep pace.

In fact, eight in 10 respondents from the region reported active projects toward digital transformation. This vast majority, which compares with nine in 10 globally, is just slightly fewer than in 2021, but the types of projects have shifted toward increasing sophistication.

Specifically, digital transformation generally proceeds through three phases:

1. Task or process automation
2. Digital expansion, including scaling the business with technology
3. AI-assisted business

Organizations frequently work in more than one phase at once, automating in some areas even as they pursue AI assistance in others. In 2022, the percentage of respondents in Latin America who indicated they were automating processes shrank from 31% in 2021. The trend for global respondents was just the opposite, moving from 25% in Phase 1 for 2021 to 33% in 2022.

On the other hand, the share of Latin American respondents working in Phase 2, digital expansion, jumped from 58% in 2021 (a rate slightly higher than the global average that year) to 68%, or more than two-thirds. Meanwhile, the share of respondents working in Phase 3, AI-assisted business, remained constant in Latin America while rising by 5 points globally.

This survey finding and others suggest that when it comes to digital transformation, organizations in Latin America have much in common with their global counterparts. Nonetheless, a few results highlight particular characteristics and challenges of digital business in the region, including:

- Application modernization methods
- Multi-cloud computing and its challenges
- Attitudes around security and app performance
- The trends deemed most exciting over the next few years

The data and insights that follow reflect the responses of more than 110 IT decision makers in Latin American countries who work for organizations of all sizes and across industries. How does your organization compare?

To put these results in context, get the full picture across industries from the global 2022 F5 State of Application Strategy Report.
Modernization Continues, As Do Multi-Cloud Challenges
APPLICATION MODERNIZATION CONTINUES in Latin America for nearly nine in 10 organizations. Most use multiple methods of modernization, including the addition of APIs and modern app components.

Interestingly, organizations in Latin America are slightly less likely to use the top global methods and slightly more likely to refactor, modifying the application code itself. This somewhat greater tendency to refactor is probably a function of the types of architectures involved, the available skillsets, or both. For instance, organizations with a substantial number of client/server applications might find refactoring a more efficient solution than others, particularly if the skills to maintain those older applications aren’t available.

Meeting a variety of multi-cloud challenges
Organizations in Latin America value multi-cloud flexibility even more than most. Yet fewer than two-thirds of Latin American organizations (58%) currently have apps deployed in multiple clouds. That compares with 70% of global respondents.

Limited availability of competing cloud providers may be one explanation. Latin American companies may also feel more constrained by the staffing and skill levels needed to manage multiple clouds and multiple providers’ tools. Such constraints underscore the value of application security and delivery technologies and other tools that work across environments and architectures.

Another explanation may be related to whom the organization serves. Digital innovators typically provide applications and digital services not only for interactions with their own employees but also with customers, patients, partners, suppliers, students, and other constituents. They’re also more likely to have multi-cloud strategies. In fact, globally 80% of digital innovators report the use of multiple cloud providers, compared to only 36% among those who don’t provide digital services outside their own organizations. Since nearly one in five (18%) of Latin American respondents said they only provided digital services for employees, multi-cloud deployment becomes less necessary in the region. Compare that 18% whose digital services are limited to employees with 8% in North America and only 4% in Europe, the Middle East, and Africa.

Modernization Methods

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

We learned: Organizations in Latin America are more likely to refactor than their global counterparts.
Among Latin American organizations that do deploy apps in multiple clouds, slightly more report challenges than do global respondents. Nearly half (46%) cite performance optimization and combating application sprawl, for instance. Despite these challenges, Latin American organizations were less likely to repatriate applications to on-premises data centers than their global counterparts. Only 48% either had already repatriated apps or planned to do so in 2022, compared to 77% globally. This may reflect not only the difficulty of migration but relatively weaker regional interest in site reliability engineering (SRE) practices. SRE practices can enable management of on-premises apps with the flexibility and efficiency typically associated with the cloud. More than 90% of respondents in North America and EMEA have already adopted SRE practices or plan to soon; the figure for Latin America is 68%. Without such nimble management approaches, repatriation often doesn’t make sense.

F5 Insight
Regardless of the method used to modernize them, app portfolios in Latin America, like elsewhere, are increasingly weighted toward modern and mobile apps. And with deployment to multiple clouds limited, hybrid architectures and core legacy apps aren’t going away. As a result, complexity is here to stay, too.

What this means for you
Managing applications and the technologies that support them will remain a challenge. This challenge can be at least partially overcome with platform-agnostic security and delivery technologies that provide consistent protection, visibility, and performance for all applications, regardless of where and how they’re deployed.

Multi-Cloud Challenges
We asked:
What challenges do you currently have with deploying applications in multiple clouds? Select all that apply.

We learned:
Respondents face a variety of challenges and no dominant single issue.

- Optimizing the performance of the application: 46%
- Controlling application sprawl: 46%
- Gaining visibility into application health: 44%
- Applying consistent security policies: 41%
- Migrating apps among clouds/data centers: 39%
- Determining which cloud is the most cost-efficient for our application: 39%
- Complying with regulations: 32%
- Not having the right skillset within the organization: 29%
- Other: 2%
- No challenges now: 2%
02

Security and Performance Are Being Comfortably Balanced
IN 2021, LATIN AMERICAN survey respondents expressed slightly higher confidence in their ability to protect their apps than global respondents did. This confidence seems to be reflected again in 2022 survey findings.

For instance, organizations in the region ranked incident troubleshooting as their most valuable use of insights about application health, performance, and security. Notification of attack ranked second. Meanwhile, global respondents reversed those rankings and prioritized attack notification.

Similarly, the vast majority (83%) of Latin American organizations planning to deploy at the edge reported that digital experience workloads were their top priority, with improving application performance as the top business outcome. Security workloads ranked a close second. This prioritization was reversed globally. One influencing factor in Latin America may be the availability of edge and SaaS providers compared with more established content delivery network (CDN) services, which traditionally focus on performance.

Latin American respondents seemed notably more comfortable than others with their current balance between security and performance. The region’s respondents were not very tempted to turn off security controls, even in exchange for big performance gains.

**Enthusiasms for the immediate future**

Still, the region’s respondents are eager for better security solutions. They called zero trust security and web application and API protection (WAAP) their top two most exciting technologies for the next two to three years. Respondents in Latin America were somewhat less interested in the convergence of IT and operational technologies (OT) and in 5G, which ranked as the top two trends globally. However, the apparently weaker enthusiasm in Latin America may simply reflect relatively lower survey participation rates by manufacturing and telecommunications representatives.

**Security vs. Performance**

We asked:
What performance improvement would entice you to turn off security controls?

We learned:
Organizations in Latin America were not easily tempted.

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>Latin America</th>
<th>Global</th>
</tr>
</thead>
<tbody>
<tr>
<td>0% No chance of this</td>
<td>49%</td>
<td>24%</td>
</tr>
<tr>
<td>1-25%</td>
<td>14%</td>
<td>20%</td>
</tr>
<tr>
<td>26-50%</td>
<td>26%</td>
<td>29%</td>
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<tr>
<td>51-75%</td>
<td>9%</td>
<td>19%</td>
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<tr>
<td>76-100%</td>
<td>8%</td>
<td>3%</td>
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Secure access service edge (SASE), which was named the top trend by regional respondents in 2021, didn’t make the top four in 2022. Similarly, the shine of AI operations (AIOps) may have dimmed. Last year, it excited more than half of Latin American respondents to rank in second place overall; this year, it fell to third for the region, while global organizations didn’t even rank it in their top five.

Why the cooling on AIOps? Reality may have set in. In 2021, respondents in Latin America had big plans, with 61% reporting they were already using or planning to use AI or machine learning to protect apps by the end of that year. This year, only 20% said they were currently doing so. The challenges of implementation on a production scale are probably becoming more apparent.

Specifically, 98% of organizations around the world are lacking insights they need, and those in Latin America said data about possible attack was the type they most needed. Nearly everyone is also missing critical skills, including those for vendor-specific automation that could help power AI. Finally, the mild retreat of interest in AIOps means that IT teams struggling with manual operations simply can’t yet handle the volumes of data and the configuration, deployment, and decision speed required to apply AI or machine learning to improve business processes and the customer experience.

**F5 Insight**
As edge deployments rise, applications, workloads, and the security and delivery technologies they rely on will be increasingly dispersed, while the foundation for AI and machine learning remains shaky at best.

**What this means for you**
Organizations can increasingly choose how to protect and deliver their applications—and the ideal deployment models for the technologies that help. Treating such decisions as an afterthought of the app development process won’t deliver the efficiency, granularity, or consistency required for safe and optimal digital experiences. Nor will it deliver the telemetry and insights needed to enhance the business with AI or ML. Instead, making the best decisions will require focused attention and solutions that are easy to manage, provide needed insights, and work reliably across a large variety of deployment models.

### Top Technology Trends

**We asked:**
Which technologies are you most excited about over the next few years? Select all that apply.

**We learned:**
Security innovations generated enthusiasm.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zero trust</td>
<td>45%</td>
</tr>
<tr>
<td>WAAP</td>
<td>44%</td>
</tr>
<tr>
<td>AI Ops</td>
<td>41%</td>
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<tr>
<td>5G</td>
<td>35%</td>
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</tbody>
</table>
Conclusion
Latin American Organizations Are Keeping Pace but Have Needs to Address
The demand for fast, safe, digital experiences is global, and consumers, employees, and business partners in Latin America are no exception. Organizations in the region are generally aligned with those elsewhere, busily transforming manual interactions into digital applications, and global competition ensures that current rates of change are unlikely to slow. Digital businesses in Latin America are particularly focused on security and improving their users’ experiences, and they’re as ready to implement AI and ML as those anywhere else—but in practice, that’s not very ready. To achieve related plans, they’ll need to prioritize technologies that will securely deliver their apps, no matter the environment or architectures involved, while enabling both telemetry and real-time automation to more quickly respond to shifting pressures and market demands.

About the report
The Latin American results presented here are based on the responses of 117 IT decision makers working in Latin America for a broad range of industries. Technology, distribution and retail, and education were particularly well represented, which correlates with the strong focus on the digital experience reported in the region’s results.

Where Latin American results are compared with those globally, the latter are based on responses from more than 1,400 decisionmakers around the world and across industries. Respondents from Latin American organizations were slightly more likely to provide digital services to other businesses (53%) than to consumers (48%), unlike global respondents, the plurality of whom served consumers. Regional organizations were also more likely to provide digital services to government agencies (29%) than were global respondents.
About F5

F5 solutions for automation, security, performance, and insight empower industry leaders to create, secure, and manage adaptive applications that reduce costs, increase business success, and better protect people and organizations.