Forbes
INSIGHTS

The CIO Of 2025:

Start Modernizing Your App Pipeline Today

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Applications can be built in two ways, says Sumit Dhawan, president of VMware: The old way or the right way.

Traditional app pipelines were built to meet specific business needs as they arose, he explains. This "line of business" approach puts IT on reactive footing: Please build X to solve Y problem.

Modern pipelines, on the other hand, are designed to create a "holistic customer experience" that encourages engagement across the entire organization. This new application strategy breaks down barriers that have traditionally kept CIOs at arm's length from strategic business decisions.

At the center of this seismic shift? Multicloud technology, according to a survey of more than 600 CIOs, which was conducted by Forbes Insights on behalf of VMware. Among other questions, these technology leaders executives were asked how they intend to modernize their IT environments over the next few years.

According to the survey, modern applications are considered critical by most CIOs to remain price competitive (53%); stay ahead of the competition (52%); and maintain more efficient, lower-cost supply chains (51%).

A majority also agrees that multicloud infrastructure can accelerate innovation within their organizations. Seventy percent say their companies would benefit from greater simplicity across their many platforms, and 68% want a more seamless developer experience.

The survey also shows that CIOs are welcoming this opportunity with open arms. Three-quarters say they're most responsible for accelerating change in their enterprises, and 72% agree that CIOs should take "a bold leap forward" in developing their applications strategies. Already, one in five

CIOs is managing between 11 and 20 modern applications; by 2025, that number is expected to nearly double (38%).

To Dhawan, this is good news. "Digitization has now become a key priority in how every business is going to differentiate themselves. If they don't do it at pace and speed, then someone in the marketplace who was born digitally is going to wipe out the existing business models."

Digging deeper into the data, we found several regional differences that may add more context to the CIOs changing role. For instance, when asked which technologies accelerate innovation and adoption of other technologies, CIOs in Asian-Pacific markets were much more likely to cite modern applications than were their peers in the Americas and Europe. Dramatically so, in fact: 37% in APAC; 23% in Europe; and 7% in the Americas.

This marked difference may be related to the perceived challenges of modernization, and how they also vary between these three regions. Notably, CIOs in the Americas are significantly more concerned with "overstretching of IT staff" than are their global peers: 71% in the Americas; 42% in Europe; 30% in APAC.

Is the importance of modernizing applications downplayed by CIOs in the Americas because they honestly don't believe it's important—or because they're worried about having enough resources?

CIOs in APAC, meanwhile, are notably more concerned with maintaining cybersecurity defenses: 58% in APAC; 49% in Europe; and 46% in the Americas.

Dhawan appreciates all of these concerns, but especially the security risks, which have only gotten worse in the past two years.

"With the pandemic, the amount of digital exposure just increased significantly," he notes.

But the solution is not to slow down, he says. Organizational digitalization and app modernization must remain urgent priorities for CIOs. Dhawan instead recommends a three-pronged approach to improving cybersecurity without compromising innovation.

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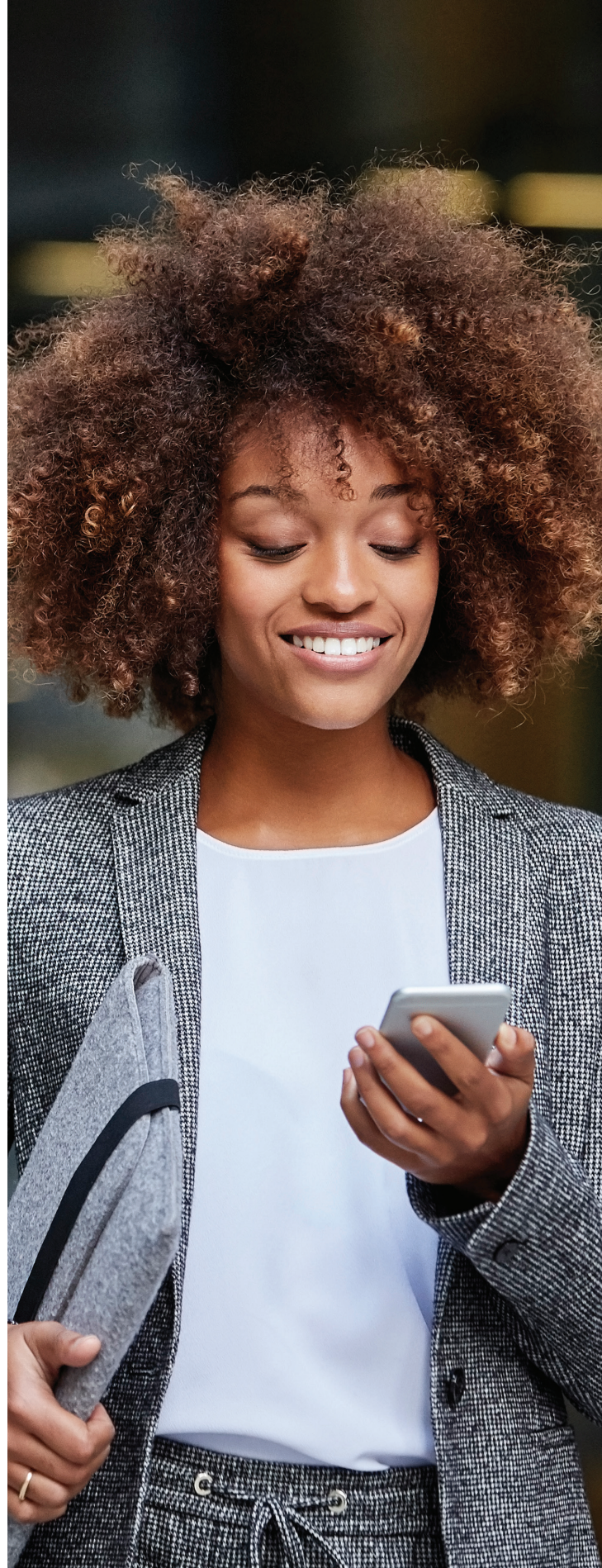
First, consolidate your cloud engagements.

"If you're going to have a private data center, and you're going to have multicloud, and you're going to build a bunch of applications, then you've increased the surface area," he says.

In this scenario, security should be centralized on a multicloud platform provider, not distributed across each service. "By definition, that reduces the risk," Dhawan says.

Second, make sure your security is baked-in, not added-on.

"Security that's intrinsic to the infrastructure and the platform gives you the ability to create checks at the technology level," Dhawan says. "As the data is flowing in through the infrastructure, you're able to protect it through your controls."

Finally, add security measures and dynamic capabilities into the app pipeline itself.

"When you're building the applications, you're creating an assumption that attacks will happen," he says. "When the attacks happen, those vulnerabilities can be rapidly cleaned up by having authorized sets of services that can be quickly updated running in this multicloud world."

Once again, here we see the crucial relationship between multicloud and modern apps. By using multicloud to create their pipelines, CIOs can build, run and manage cloud-native apps at scale. This increases reliability and efficiency, while also reducing cost and time to market.
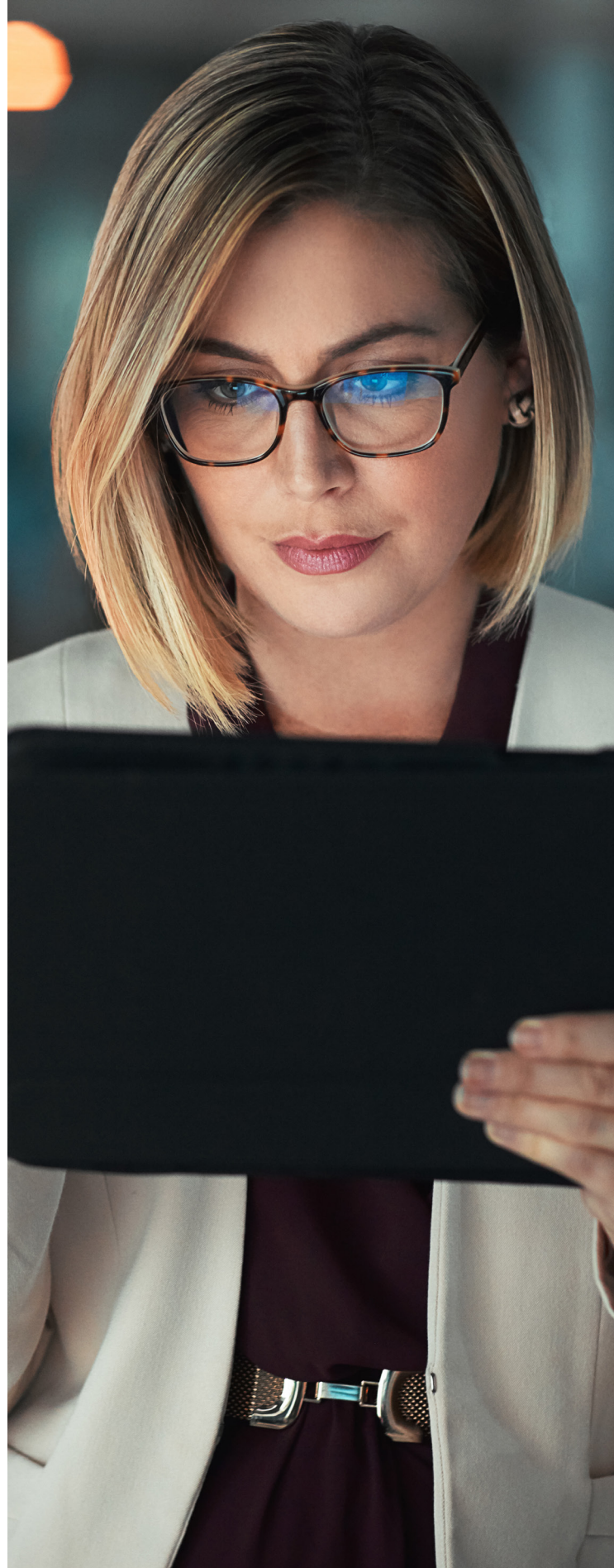
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