IDC FutureScape Worldwide IT Industry 2023 Predictions Latin America Implications

December 6th, 2022

Speakers





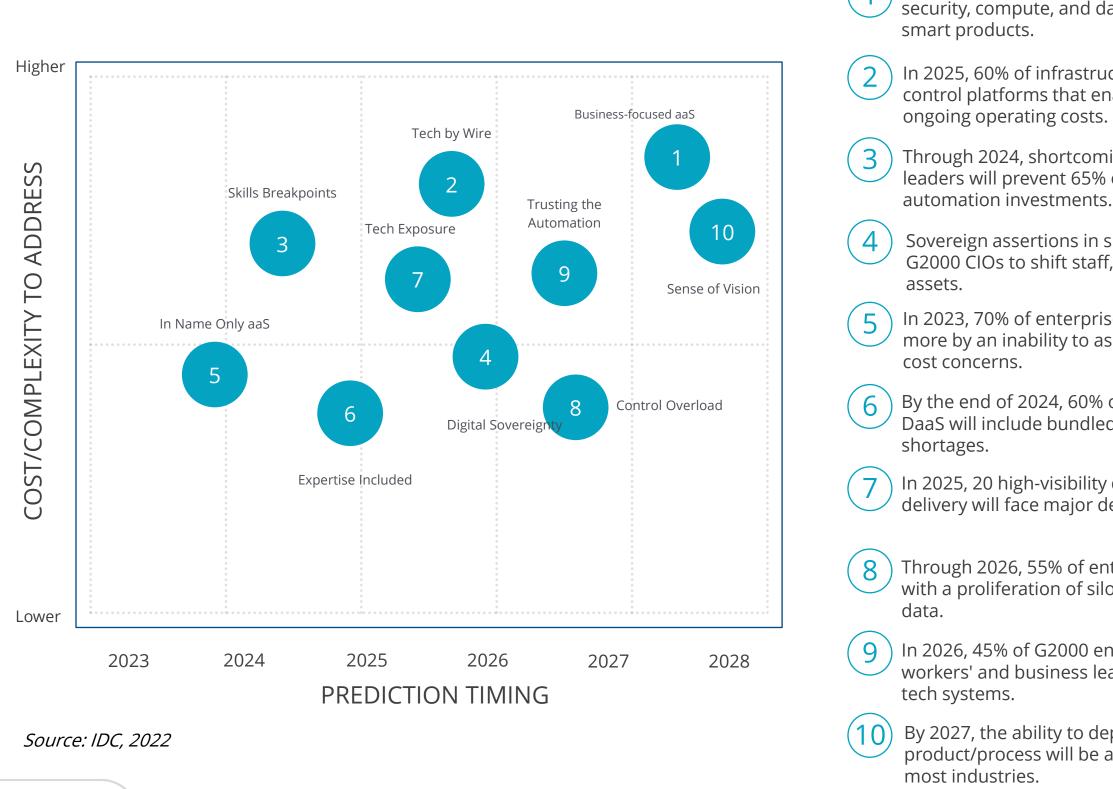
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IDC FutureScape: Worldwide IT Industry 2023 Predictions





By 2027, over 50% of IT budgets in most G500 enterprises will be allotted to connectivity, security, compute, and data assets used to deliver their own as-a-service processes and

In 2025, 60% of infrastructure, security, data, and network offerings will require cloud-based control platforms that enable extensive automation and promise major reductions in

Through 2024, shortcomings in critical skills creation and training efforts by IT industry leaders will prevent 65% of businesses from achieving full value from the cloud, data, and

Sovereign assertions in sustainability, resiliency, and asset residency through 2025 will force G2000 CIOs to shift staff, budgets, and operating processes for more than 35% of IT and data

In 2023, 70% of enterprises' adoption of as-a-service infrastructure/software will be curbed more by an inability to assess promises of faster innovation and operational gains than by

By the end of 2024, 60% of platinum-level aaS offerings in security, business operations, and DaaS will include bundled access to specialized SME teams to help reduce impact of skills

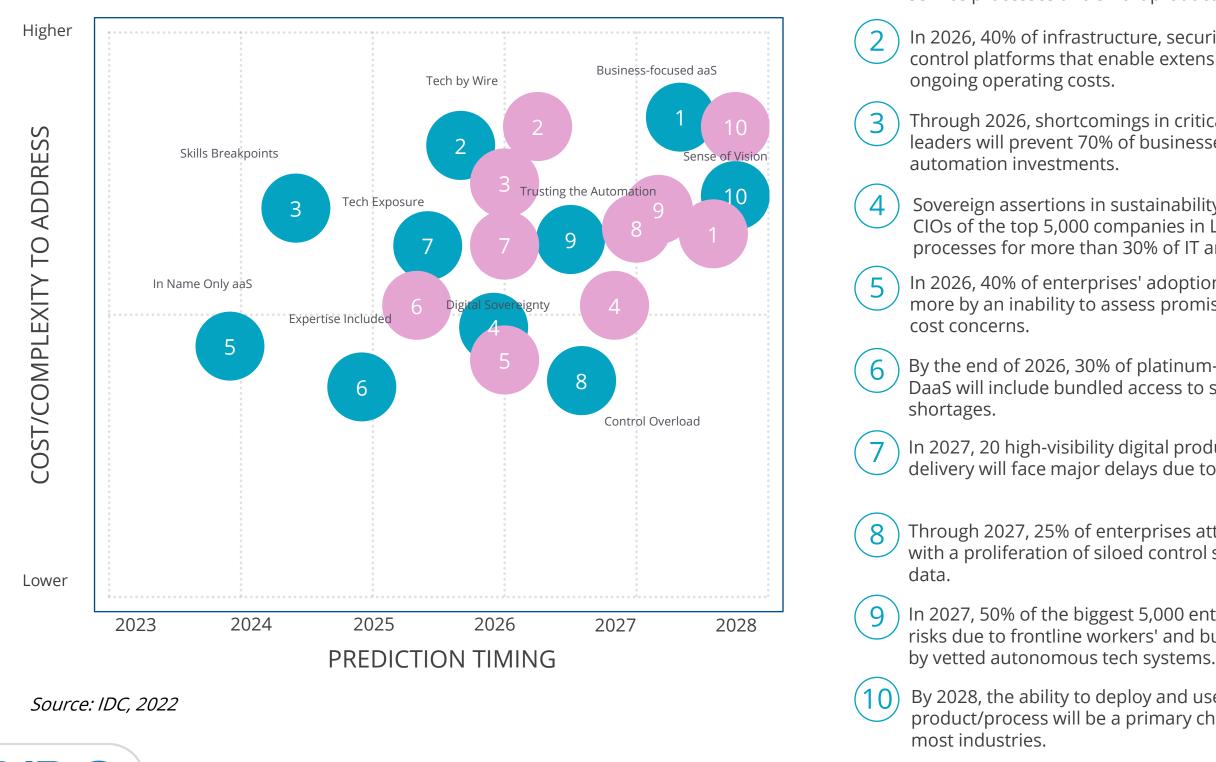
In 2025, 20 high-visibility digital product launches reliant on intelligent automation and aaS delivery will face major delays due to global or regional silicon and code supply chain issues.

Through 2026, 55% of enterprises attempting to use tech-by-wire offerings will still struggle with a proliferation of siloed control systems that raise connectivity costs and limit sharing of

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By 2027, the ability to deploy and use machine vision as an inherent capability in any new product/process will be a primary characteristic of the five fastest-growing enterprises in

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By 2028, over 35% of IT budgets in the biggest 5,000 enterprises in Latin America will be allotted to connectivity, security, compute, and data assets used to deliver their own as-a-service processes and smart products.

In 2026, 40% of infrastructure, security, data, and network offerings will require cloud-based control platforms that enable extensive automation and promise major reductions in ongoing operating costs.

Through 2026, shortcomings in critical skills creation and training efforts by IT industry leaders will prevent 70% of businesses from achieving full value from the cloud, data, and automation investments.

Sovereign assertions in sustainability, resiliency, and asset residency through 2026 will force CIOs of the top 5,000 companies in Latin America to shift staff, budgets, and operating processes for more than 30% of IT and data assets.

In 2026, 40% of enterprises' adoption of as-a-service infrastructure/software will be curbed more by an inability to assess promises of faster innovation and operational gains than by

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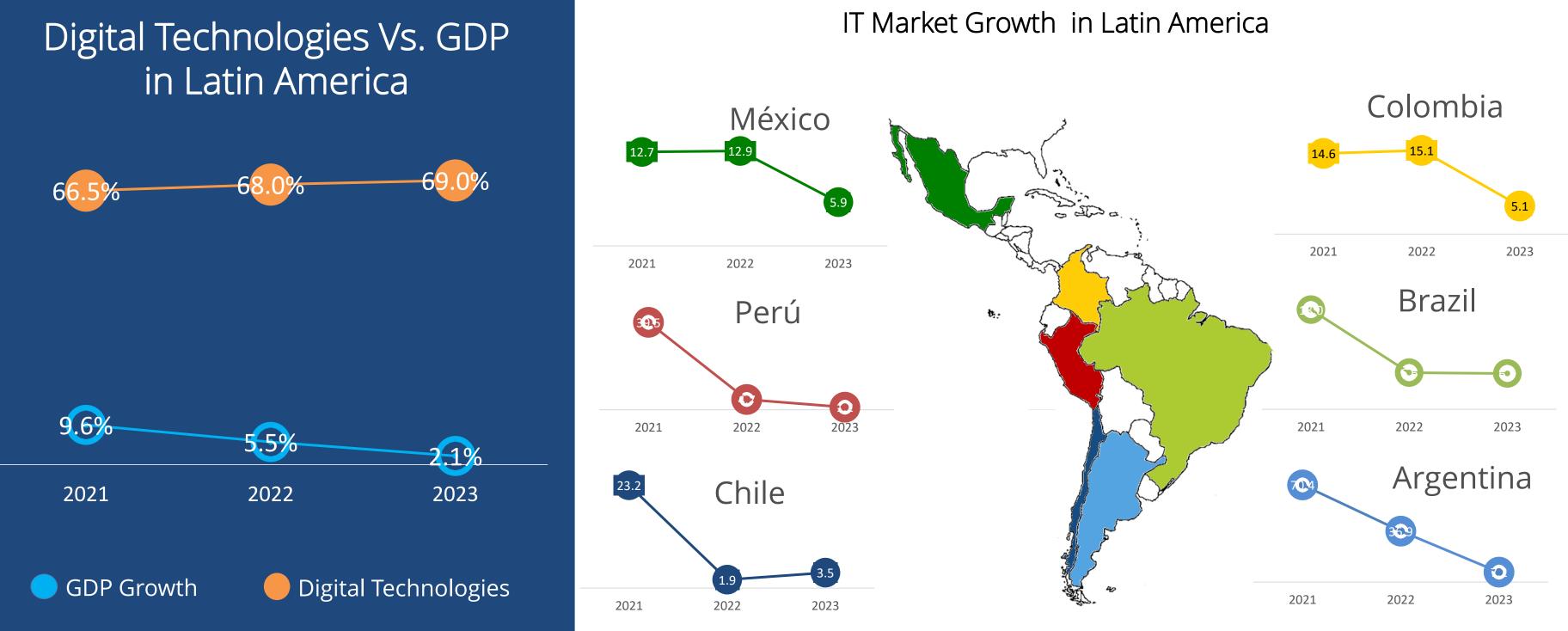
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Source: IMF, World Economic Outlook October 2022.

Spending on Digital technology by organizations in LatAm will grow by 32 times the economy in 2023

Digital technology establish a foundation for operational excellence, competitive differentiation, and long-term growth.



Source: IDC Worldwide Black Book Live Ed and 3rd Platform (October 2022); growth in constant currency; IT Spending excludes telecom spending and business services.

Latin America IT Spending Growth 2023: Vectors of Disruption

The U.S. Economy evolution is a key risk

Ukraine War





Policy uncertainty in the region could continue to constrain investment

"By 2028, over 35% of IT budgets in the biggest 5,000 enterprises in Latin America will be allotted to connectivity, security, compute, and data assets used to deliver their own as-a-service processes and smart products."

COST/COMPLEXITY TO ADDRESS

Higher

Lower

2023



Source: IDC, 2022





By 2028, over 35% of IT budgets in the biggest 5,000 enterprises in Latin America will be allotted to connectivity, security, compute, and data assets used to deliver their own as-a-service processes and smart products.

IT impact

- The scale and complexity of IT asset, connectivity and facilities sourcing, contract terms, security commitments, and budgeting will increase dramatically.
- Business units will have increasing influence over funding IT projects and setting IT performance expectations, making IT asset control/ownership more distributed and governance more complex.
- CIOs will focus more on supporting digital product engineering teams in business units or be challenged by LOB colleagues for control of IT funds.



"Every time we sell a connected device, we need more compute, more connectivity, more data management capabilities, more cloud capacity -the list goes onand IT needs to budget for this..."

CIO, Large Global **CPG Multi-National**

By 2028, over 35% of IT budgets in the biggest 5,000 enterprises in Latin America will be allotted to connectivity, security, compute, and data assets used to deliver their own as-a-service processes and smart products.

- 1. Prioritize governance practices that are mission and outcome driven and encourage the development of highly autonomous teams that can rapidly identify and resolve bottlenecks triggered by rapid expansions in different technology areas and across regions.
- 2. Invest more in building stakeholder relationship skills in the IT organizations and create a pool of business relationship managers tasked with better serving customer-facing organizations.
- 3. Adopt a long-term product management mindset that emphasizes delivery of a wide portfolio of IT-as-a-service resources with a focus on helping business teams build viable, long-term digital services.



"In 2026, 40% of infrastructure, security, data, and network offerings will require cloudbased control platforms that enable extensive automation and promise major reductions in ongoing operating costs." Higher

Lower

2023



Source: IDC, 2022



In 2026, 40% of infrastructure, security, data, and network offerings will require cloud-based control platforms that enable extensive automation and promise major reductions in ongoing operating costs.

IT impact

- Effective use of tech-by-wire-based aaS offerings that require greater levels of secure connectivity and data sharing with technology partners is delayed by existing network and data sharing guidelines.
- IT teams struggle with portfolio inflation, attempting to keep abreast with and fully leverage the array of new functions that tech-by-wire makes it possible for providers to continuously add.
- The AI-enabled resource automation and optimization benefits promised by tech-by-wire offerings are seen as a threat by critical IT staff members who have critical skills required to maintain important non-aaS-based IT assets.



"Software workloads" Cloudify in Latin America, the way of no return; by 2026, 62% of packaged software sales will be in a cloud-based model."

Source: IDC Software and Cloud Tracker, May 2022

In 2026, 40% of infrastructure, security, data, and network offerings will require cloud-based control platforms that enable extensive automation and promise major reductions in ongoing operating costs.

- 1. Adopt more flexible connectivity and security systems that make it easier to enable the connectivity and data sharing required to take full advantage of aaS providers' "control planes."
- 2. Require providers to enable open access to the network, performance, and configuration data generated by their systems to your organization and encourage sharing of relevant data across providers.
- 3. Refocus all IT operational practices on the buildout of strategic skills (e.g., design, modelling, security, optimization, user experience, business analysis, and IT automation) that effective use of tech-by-wire offerings required to deliver a maximum value to the organization.



"Through 2026, shortcomings in critical skills creation and training efforts by IT industry leaders will prevent 70% of businesses from achieving full value from the cloud, data, and automation investments." Higher

Lower

2023



Source: IDC, 2022



Through 2026, shortcomings in critical skills creation and training efforts by IT industry leaders will prevent 70% of businesses from achieving full value from the cloud, data, and automation investments.

IT impact

- CIOs face workloads that are escalating in volume and complexity while they face challenges in finding talent with the right skill sets.
- The increased cost of finding scarce and expensive talent inflates the cost metrics underpinning major digital business initiatives at a time when such investments face scrutiny.
- Availability of a large pool of individuals with skills specific to individual technology providers has an undue influence of vendor and technology selection, creating long-term risks of lock-in and greater technical debt.



"The IT skills gap's economic impact in LatAm will represent almost USD 50 billion by 2025 as a result of the delay in launching products/services, loss of income or increase in costs, and a slightly developed digital economy, which would represent at least 1% of the region's GDP for that year"

Source: IDC's Technology **Employment Impact** Guide, 2022

Through 2026, shortcomings in critical skills creation and training efforts by IT industry leaders will prevent 70% of businesses from achieving full value from the cloud, data, and automation investments.

- 1. Business strategy and learning strategy must go hand in hand with technology strategy to ease current difficulties in finding the talent/skills required for digital business, so ensure that LOB leaders are not discouraging staff from pursuing tech training and career development.
- 2. Track and measure skills pools and success rates for upskilling/reskilling efforts to ensure skills investments are included up front in resource allocation decisions for important projects.
- 3. ClOs must create technology acquisition policies that mandate cost efficient and fast training or the assurance of affordable and available support to mitigate skills shortage with every significant technology purchase.



"Sovereign assertions in sustainability, resiliency, and asset residency through 2026 will force CIOs of the top 5,000 companies in Latin America to shift staff, budgets, and operating processes for more than 30% of IT and data assets."

COST/COMPLEXITY TO ADDRESS

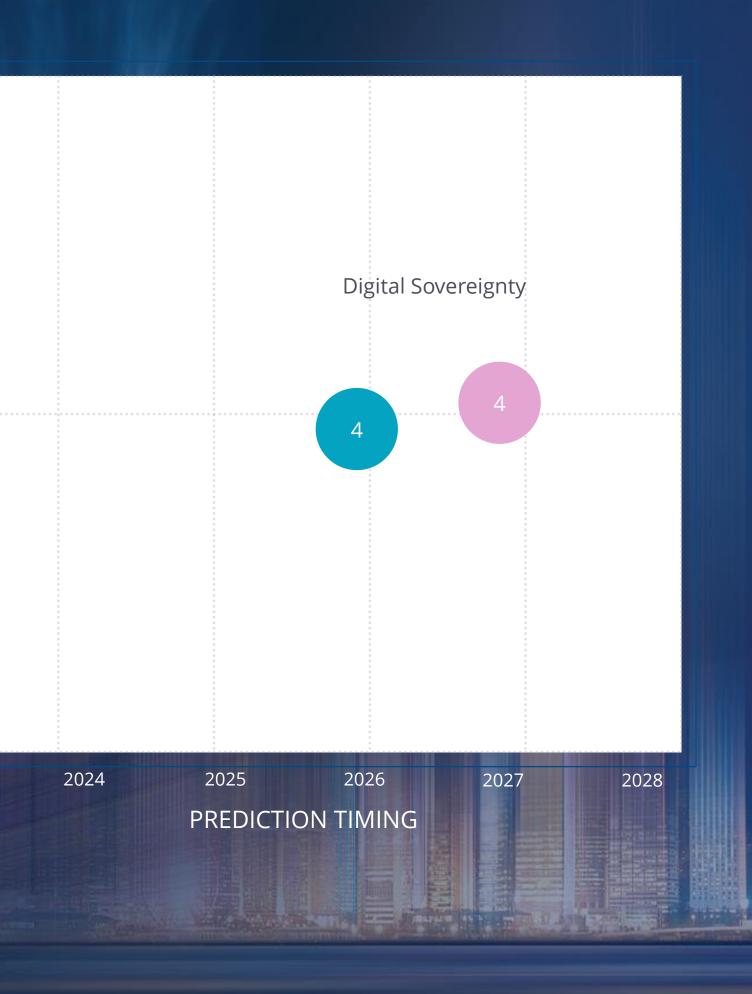
Higher

Lower

2023



Source: IDC, 2022



Sovereign assertions in sustainability, resiliency, and asset residency through 2026 will force CIOs of the top 5,000 companies in Latin America to shift staff, budgets, and operating processes for more than 30% of IT and data assets.

IT impact

- Adding consideration of sovereign cloud options in multicloud or hybrid IT scenarios adds further complexities and potential costs for organizations.
- Overoptimizing for local needs increases risk of lock-in with local providers and jeopardizes future opportunities in a wide range of markets; it's better to leverage more globalized IT assets.
- The organization's major technology partners will also face a growing range of sovereignty compliance requirements and auditor scrutiny, which will force your organization to better understand the availability of compliance-enabling features for regulated workloads.



"By 2026, more than 49% of organizations in Latin America will prioritize factors such as data governance and privacy as central elements of their cyber resilience and sustainability strategy

Source: IDC Cyber Security Report, 2022

Sovereign assertions in sustainability, resiliency, and asset residency through 2026 will force CIOs of the top 5,000 companies in Latin America to shift staff, budgets, and operating processes for more than 30% of IT and data assets.

- 1. The sovereignty landscape is ever changing and fast moving, so use the jurisdiction where you do business that has the toughest regulations and laws as the benchmark when evaluating the use of sovereign solutions across all international operations.
- 2. Note that implementing sovereignty principles is a long-term process and involves adapting to new IT requirements in terms of infrastructure, strategy, governance framework, and skills.
- 3. Look for partners that invest to constantly assure customers that the sovereign solutions they are leveraging today remain sovereign tomorrow.



"In 2026, 40% of enterprises' adoption of as-a-service infrastructure/software will be curbed more by an inability to assess promises of faster innovation and operational gains than by cost concerns."

COST/COMPLEXITY TO ADDRESS

Higher

Lower

2023



Source: IDC, 2022



In 2026, 40% of enterprises' adoption of as-a-service infrastructure/software will be curbed more by an inability to assess promises of faster innovation and operational gains than by cost concerns.

IT impact

- Different parts of IT and LOB teams "subscribe to" and commit training resources to redundant solutions from multiple as-a-service providers, especially when these cross existing organizational silos.
- Diverse pricing, subscription, and SLA terms across providers make it more challenging to effectively evaluate the long-term benefits of individual portfolio elements and the entire as-a-service portfolio.



"IDC expects that" more than 25% of Enterprise Infrastructure HW purchases in Latin America will be in the As a Service model by late 2023."

Source: IDC Latin América Quarterly Enterprise Infrastructure research, 2022Q3

In 2026, 40% of enterprises' adoption of as-a-service infrastructure/software will be curbed more by an inability to assess promises of faster innovation and operational gains than by cost concerns.

- 1. Have central IT architecture and procurement teams working with FinOps tools play a greater role in reviewing expansions of new and existing as-a-service contracts across the organization to look for current and potential overlaps.
- 2. Require providers to deliver transparency within consumption terms/values and subscriptions prices/status while looking to aaS providers to deliver more customer onboarding and customer success metrics as part of their aaS portals.



"By the end of 2026, 30% of platinum-level aaS offerings in security, business operations, and DaaS will include bundled access to specialized SME teams to help reduce the impact of skills shortages." Higher

Lower

2023



Source: IDC, 2022



By the end of 2026, 30% of platinum-level aaS offerings in security, business operations, and DaaS will include bundled access to specialized SME teams to help reduce the impact of skills shortages.

IT impact

- Easier access to scarce and highly useful expertise allows IT organizations to provide greater assurance to business leaders in the areas of security, data use, and resource management,
- Achieving maximum value from "expertise included" options requires the establishment (or resetting) of data sharing and data usage guidelines for any technology telemetry.



"IDC sees the skills gap growing and 11.4% from 2022 to 2025, and by 2026 there will be nearly 2.5 million emerging roles requiring updated professionals."

Source: IDC Latin America IT Talent Research, 2022

By the end of 2026, 30% of platinum-level aaS offerings in security, business operations, and DaaS will include bundled access to specialized SME teams to help reduce the impact of skills shortages.

- 1. Ensure that any provider offering an "expertise included" option is leveraging open data standards and is integrated with your organization's current event management system.
- 2. Establish clear standards on the scope of configuration, performance, and use data (especially business process data) that it's acceptable to share with third parties and which data sets can be aggregated and leveraged (even if anonymized) by third parties for community-level insight.



"In 2027, 20 high-visibility digital product launches reliant on intelligent automation and aaS delivery will face major delays due to global or regional silicon and code supply chain issues."

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Lower

2023





In 2027, 20 high-visibility digital product launches reliant on intelligent automation and aaS delivery will face major delays due to global or regional silicon and code supply chain issues.

IT impact

- Many "obvious" decisions about where to place workloads will be quickly upended due to growing pains in the tech supply chain and the network/cloud convergence.
- IT organizations in enterprise most directly affected by tech-intensive industry change will find that their control over overall corporate technology selection and spend receding even further behind line-of-business teams making longterm sourcing decisions.



"Telecommunication Public Cloud Infrastructure in Latin America will grow significantly driven by the need to support the edge computing expansion and orchestrate data based on digital technologies."

Source: IDC Public Cloud Spending Guide and ICT **Spending Guide Industry** and Company Size-IDC, June 2022

In 2027, 20 high-visibility digital product launches reliant on intelligent automation and aaS delivery will face major delays due to global or regional silicon and code supply chain issues.

- 1. While developers must remain committed to rapid application development/deployment, CTOs in business units and IT architects must enable less onerous transitions to new, more location aware resource delivery models.
- Business unit leaders and CTOs must become more involved with the establishment of deep links with silicon, core software, and connectivity providers, while CIOs must plan for some level of resource/asset redundancy to enhance their strategy for business continuity.



"Through 2027, 25% of enterprises attempting to use tech-by-wire offerings will still struggle with a proliferation of siloed control systems that raise connectivity costs and limit sharing of data."



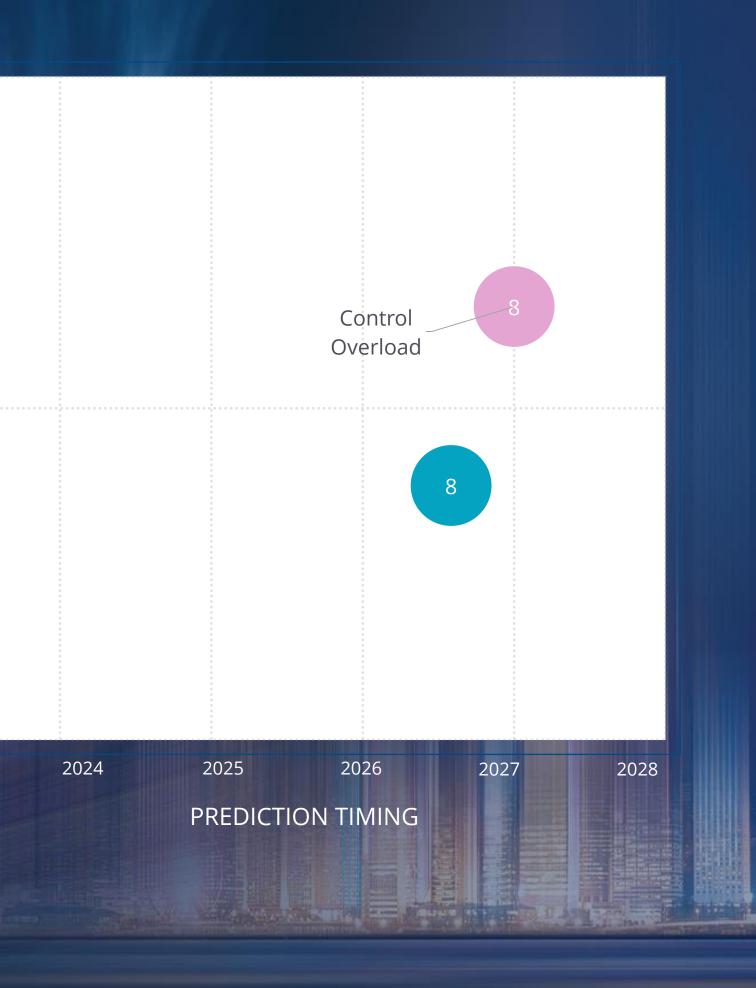
COST/COMPLEXITY TO ADDRESS

Higher

Lower

2023

Source: IDC, 2022



Through 2027, 25% of enterprises attempting to use tech-by-wire offerings will still struggle with a proliferation of siloed control systems that raise connectivity costs and limit sharing of data.

IT impact

- IT teams will need to choose between a set of initially independent control plane options: committing to a primary provider for cloud services while investing in solutions from several segment-specific providers.
- Attempting to achieve consistency in the use of diverse control plane-based platforms will pose operational and security challenges for IT organizations.
- IT teams will have to accept technology decisions made due to strategic control plane choices that increase the risks of workload lock-in for important applications.



"The development of cloud-native applications will grow more than 40% by 2023 in Latin America, which could generate a critical digital interoperability, causing a slowness in the operation of the business.

Source: IDC Software and Cloud Tracker, May 2022

Through 2027, 25% of enterprises attempting to use tech-by-wire offerings will still struggle with a proliferation of siloed control systems that raise connectivity costs and limit sharing of data.

- 1. Begin retraining their IT teams with the right skills/processes to take advantage of new control-based automation without jeopardizing security and reliability.
- 2. Start to reset KPIs for responsiveness, optimization, and reliability to enable a more effective assessment of the benefits promised by control plane-based offerings.
- 3. Make a commitment to cross-control plane data and process sharing, with a focus on open standards, when evaluating major providers of any aaS offering.



"In 2027, 50% of the biggest 5,000 enterprises in Latin America will continue to face material risks due to frontline workers' and business leaders' unwillingness to trust actions initiated by vetted autonomous tech systems."

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2023





In 2027, 50% of the biggest 5,000 enterprises in Latin America will continue to face material risks due to frontline workers' and business leaders' unwillingness to trust actions initiated by vetted autonomous tech systems.

IT impact

- Enabling the use of deep automation for business process and leveraging for IT processes is the new mandate for the IT organization, requiring high-level mastery of AI/ML and human behavior.
- Many IT organizations lack the talent and maturity and gaining access to people with the right skills will remain extremely tight for several years.
- Outcomes-driven efforts require a more coordinated, long-term approach that involves development of graduated domain/industry-specific employee augmentation strategies.



"The penetration of digital technologies related to automation, Al services, and autonomous systems will have a growth of 60% by 2023."

Source: IDC Software and Cloud Tracker, May 2022

In 2027, 50% of the biggest 5,000 enterprises in Latin America will continue to face material risks due to frontline workers' and business leaders' unwillingness to trust actions initiated by vetted autonomous tech systems.

- 1. Work with LOB executives and customer experience teams to create "intelligence maps" that identify the most promising applications for leveraging automation across the enterprise and ecosystems.
- 2. Proactively identify AI, process, and human/organizational behavior talent gaps and build relationships with partners that can meet those needs.
- 3. Don't assume that automation happens overnight or never needs to evolve as the capabilities of AI and changing human expectations can lead to rapid changes in expectations, so always keep humans in the loop to ensure sustained success.



"By 2028, the ability to deploy and use machine vision as an inherent capability in any new product/process will be a primary characteristic of the top fastest-growing enterprises in most industries."

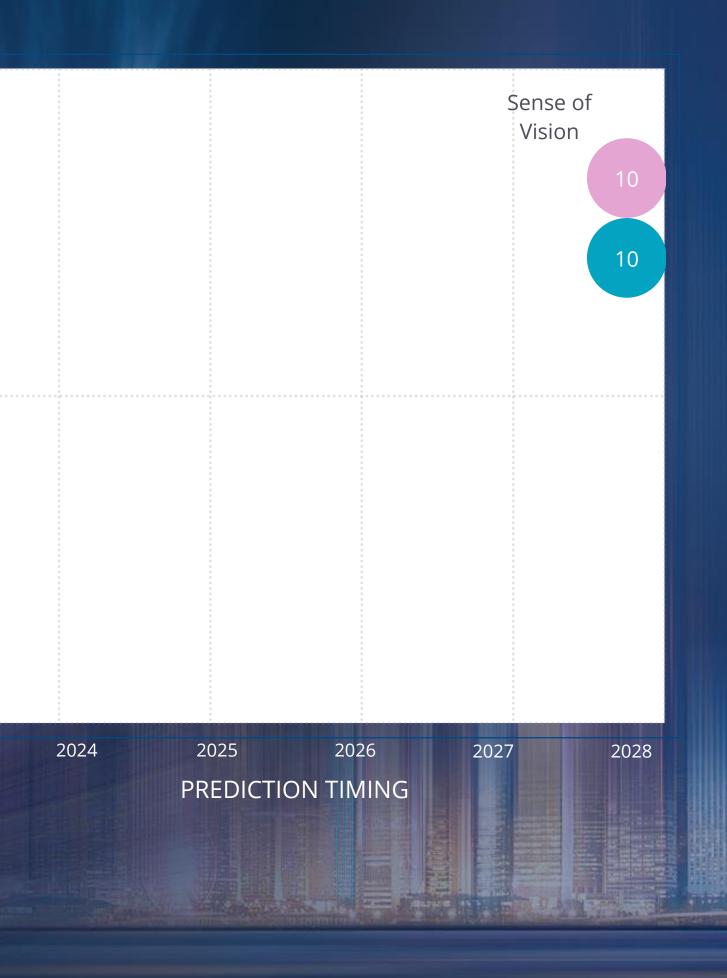
COST/COMPLEXITY TO ADDRESS

Higher

Lower

2023





By 2028, the ability to deploy and use machine vision as an inherent capability in any new product/process will be a primary characteristic of the top fastest-growing enterprises in most industries.

IT impact

- A focus on deploying (adding accessing third party) intelligent vision systems in many locations exposes limits in existing processes for governing the use of collected data and the remote management requirements that are unique to video.
- The impracticality of having the right person, with the right skills, available in the right place in a 24 x 7 x 365 way is one of the main reasons for leveraging intelligent vision systems but will be among the first to expose the limitations in onsite skills and abilities.



"The primary inhibitors" to adopt and deploy machine vision are the talent gap, lack of highquality and volume of data sets, and lack of responsible Al governance and risk management, which becomes an opportunity for vendors and the partner ecosystem to help companies solve these problems."

Source: IDC Software and Cloud Tracker, May 2022

By 2028, the ability to deploy and use machine vision as an inherent capability in any new product/process will be a primary characteristic of the top fastest-growing enterprises in most industries.

- 1. CIOs must design and implement an appropriate governance for the deployment and use of vision technology in the enterprise and its ecosystems.
- 2. While modernizing edge infrastructure and central visions analysis systems, take full advantage of as-a-service visual analysis systems that provide a foundation for setting cross enterprise ethical and "privacy sensitive" vision usage guidelines.
- 3. Look for vision systems that leverage tech-by-wire capabilities meeting remote operations at scale while addressing asset life-cycle requirements of extended time frames.



Q&A Session



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