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The State of the Enterprise ISV Industry

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Introduction

G iven the 10,000+ independent software vendors in the United States alone—and the 1,000+ sprinkled throughout North and South America[1] — it's not surprising that many of GlobalLogic's ISV clients are U.S. based. But with the global market growing fast — one analyst projected 1 million ISVs by 2027[2] — we have long partnered with international players as well. Our client base includes international organizations and/or organizations based outside the U.S. This helps inform our global perspective.

GlobalLogic has provided 100+ ISV clients with digital product engineering in fields such as infrastructure software, tools and utility software, and business application software, for whom we have completed 400+ projects. This gives us broad visibility across enterprise software ISVs. Having launched more than 15 large engineering delivery labs to provide large-scale transformation projects and end-to-end digital product engineering, we see ISV priorities firsthand because we help them achieve those priorities.

We cover a wide range of topics in daily conversations with our clients as we help them design and build innovative products, platforms, and digital experiences for the modern world. Today, there is a particular focus on digital transformation and application modernization, adapting to a cloud-first world, embracing artificial intelligence (AI) and hyperautomation, and taking advantage of digital reality.

At the same time, our forward-thinking ISV clients lay the foundation for what comes next. The early adopters in areas such as blockchain and Web 3.0 will have a significant advantage over those lagging behind. The evolving technological landscape between the data center and the cloud — the edge — will drive new opportunities for ISVs. And, as industries across the board find themselves prioritizing efforts to support environmental, social, and governance (ESG) concerns, the nascent demand for applications that enable sustainability efforts will skyrocket.

In this paper, we share our perspective on the state of the industry, drawn from our partnerships ranging from established global ISVs to startups. We will begin with a look at the trends and priorities generating opportunities for innovation today.

> GlobalLogic has completed
> # 400+
> projects for
> # 100+
> ISV clients.

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[1] Number of ISVs per country in North and Latin America 2022, Statista, September 2022.
[2] What is ISV (independent software vendor)?, TechTarget, accessed October 2022.

Key Trends Influencing ISVs Today

Digital Transformation and Application Modernization

In addition to the general digitization imperative sweeping the enterprise, there is considerable pressure to retire the technical debt being incurred by continued use of legacy applications. McKinsey recently found CIOs reporting that technical debt accounts for up to 40% of their technology estate.[3] In turn, ISVs are being called on to support and enable digital transformation and application modernization across the board.

Platform/Legacy Architecture Modernization
In the context of the enterprise, the need to modernize legacy applications exceeds the capacity of available talent. While modernization is inherently a brownfield scenario, it can take many forms, and as such can require ISVs to have a wide range of capabilities beyond their core competencies. Some approaches, such as as-a-service modernization solutions, entail an entire change in business model. But what we see most often are legacy on-premises or data center–based solutions being transformed into cloud-native solutions.

One GlobalLogic client, a leader in digital customer experience transformation, sought to reduce swivel-chair access to their day-to-day applications. They wanted to instead offer a unified experience, with a single window bringing together disparate applications. Starting at the advisory state, we worked with the client to develop the minimum viable product (MVP) into a full-scale product for 56,000+ users. The solution included a web portal for administration in addition to the customer-facing portal, all delivered with reusable microservices.

Digitization, the proliferation of cloud, and the rise of AI are driving change throughout the enterprise ISV market. Here we examine a brief snapshot of current ISV trends.

GlobalLogic automated testing solutions have helped clients achieve reductions of

30-40%

in product and platform maintenance costs.

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Greenfield Development

Greenfield application development revolves largely, though not exclusively, around cloud-native solutions, which we also discuss in the following section. Cloud-native solutions differ from legacy applications in ways that impact numerous parts of the engineering lifecycle. ISVs that do not have their own cloud-native development talent are seeing an increasing need to fill that gap with strategic partnerships.

In the case of one GlobalLogic client, a leading provider of insurance products in the U.S., their engineering challenge took the form of creating a cloud-native mobile application. They sought to redefine financial wellness by making it a habit to manage finances. GlobalLogic was brought aboard to develop the mobile application from the ground up. The application GlobalLogic developed achieved the client's stated goals, with features such as implementation of a new identity and access management (IAM) solution for easy user onboarding and microservices to integrate with vendors to store and process financial transactions securely.

Application Testing

One aspect common to both greenfield and brownfield development is the need for testing. Quality assurance testing for both activities and regression testing for app modernization in particular place a heavy burden on

ISVs. A 2022 survey of 400 leading digital enterprises across industries cited a move to automated testing as their top software testing priority.[4] To meet the widespread need for testing solutions, GlobalLogic has developed testing accelerators.

For example, GlobalLogic's InteliQ accelerator applies a machine learning (ML) approach to regression testing to more effectively prioritize test cases and therefore identify critical issues and high-risk areas earlier. Similarly, the GlobalLogic Test Automation Framework is an all-in-one test automation framework based on Java that automates and accelerates software application functional testing for web apps, mobile apps, APIs, contract, and desktop apps.

These accelerators have enabled customers to achieve 15–25% year-over-year savings on product development and testing costs, save 30–40% in product and platform maintenance costs, and has helped our clients deliver increased customer satisfaction and business value.

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[4] The 2022 State of Test Automation, Perforce, accessed October 2022.

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Cloud Proliferation

The intersection of the cloud and virtualization in the form of software-defined anything have made cloud adoption the norm. Research firm Forrester found 94% of decision-makers reporting that they already have some form of cloud deployment. [5] That proliferation is driving specific trends for ISVs.

Solutions As a Service — SaaSification

Software as a service (SaaS) is one of the major cloud computing models gaining traction. Just to put the trend in perspective, McKinsey observed that nontech businesses looking for high growth potential should consider turning to a SaaS model, given that 100 public SaaS companies in the United States with revenues above $100 million had a top quartile growth rate above 40%. ISVs that lack experience in this area can be at a disadvantage.[6]

GlobalLogic was able to help one client overcome that disadvantage. This GlobalLogic client, an IT management solutions provider, had a vast portfolio of applications in their ecosystem, and each application had its own way of implementing IAM. They sought to develop a single sign-on (SSO) service that would comprise all of their SaaS applications and that they could offer as a service to their end customers. GlobalLogic took full ownership of the development and delivered a federated identity service with support for modern SSO standards such as SAML, OAuth, and OpenID, as well as multi-tenancy support and a runbook for SSO configuration.

Growth in Cloud-Native Solutions

Development in the enterprise is rapidly becoming synonymous with cloud-native development. By some estimates, 75% of companies are focusing development on cloud-native applications.[7] But even deep expertise in legacy development does not equate to cloud-native expertise.

For example, one GlobalLogic client, a leading provider in records and information management solutions, used a fleet of applications in their ecosystem that created significant challenges in visibility because each application produced logs in different data sources. The client reached out to GlobalLogic to design and develop an end-to-end observability solution. GlobalLogic delivered a cloud-native unified observability platform with a single pane of glass for end-to-end visibility across the various applications.

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of companies are focusing development on cloud-native applications.[7]

[5] The State Of Cloud In North America, 2022: Modernization And Cloud Native Will Be The New Normal, Forrester, June 2022.

[6] Drive growth by building new SaaS businesses, McKinsey, July 2022.

[7] Report: 75% of companies are focusing on cloud-native apps, VentureBeat, June 2022.

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Public Cloud for Financial Services

ISVs serving highly regulated industries have faced obstacles to embracing public cloud. But as more public cloud offerings emerge that are touted as specifically designed for hosting financial services, more financial services businesses devise hybrid solutions that can include public cloud usage.[8] ISVs serving financial customers and other fintechs will therefore likely see an increase in demand for cloud-based or even cloud-native development.

To illustrate a large bank group with presences in 15+ EU countries was serving more than 100 million clients a day with an IT infrastructure and enterprise architecture based on legacy on-premises technologies. In order to drive growth and provide much-needed improvements in efficiency, they needed to migrate all their workloads to the AWS Cloud.

They turned to GlobalLogic. We created the cloud-based foundation and platform to not only host their existing applications, but also to simplify the development of new cloud-native banking solutions in the future. Our client was able to reduce costs by implementing the cost-saving programs provided by AWS.

Product Intelligence Influencing Roadmaps

The use of cloud-native development provides visibility into how data moves through workflows, how it is exposed, and how it is used in platforms. ISVs have ready access to data that could provide vital business and product intelligence — if they know how to use it.

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[8] Hybrid Computing Lays the Foundation for Using Public Cloud in Financial Services, CIO Magazine, September 2022.

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AI and Hyperautomation

Maturation of AI

AI is making headway in the enterprise, with almost 7 of every 10 businesses either evaluating AI or having AI already in production.[9] For example, AI is increasingly seen as a differentiator in big data and analytics as enterprises shift from piloting to operationalizing AI. ISVs are therefore increasingly expected to have the ability to integrate AI in their solutions.

To facilitate that integration, GlobalLogic created a framework for data and analytics that provides a holistic array of services to modernize and evolve the customer's data journey.

The strategize, transform, realize, evolve, analyze, and monetize (STREAM) framework is one of the solution accelerators GlobalLogic provides called Inteli-Insights. STREAM enables automation of a machine language pipeline with a set of pluggable and flexible components for pre-processing, model/algorithm selection, deployment, and monitoring.

Growth of RPA/IPA

Robotic process automation (RPA) has evolved to intelligent process automation (IPA) through the creation of engineering-led platforms that expand RPA to effectively address digital transformation use cases. ISVs are therefore seeing requests for virtual assistants capable of including a rich integration and contextual layer that allows for personalized customer experiences.

To that end, GlobalLogic created a dynamic chat solution for a marketing automation product. The solution integrated with the existing marketing automation platform, providing targeted and personalized engagement for the audience. The virtual assistant was designed to promote the product through a series of dialogues with web visitors, and convert the visitors to leads.

Automating Automation

Automation already has a significant role in today's enterprise. The next step is to bring automation into processes that are already automated, a process sometimes referred to as hyperautomation. To illustrate how this works, our client, a global healthcare exchange leader, needed to enable multiple business processes (such PO processing, PHI obfuscation, and content sourcing) in a noninvasive mechanism. To achieve that, GlobalLogic created an IPA platform that delivered the required functionality and automation.

However, among the inputs to the platform, some content was handwritten. Rather than requiring human intervention, we created a value-added feature: optical character recognition (OCR) extraction from handwritten text. The system can read the handwritten documents and also classify them based on their content. This completely removes the need for human intervention. The system enabled savings that included a 40x response-time reduction from 1 hour to 1 minute.

Digital Reality

Use in Product Enhancement

A growing use of augmented reality (AR) is to enable 3D views of products. This can be in forms such as a simple video or a user-navigable 3D product view. Similarly, AR could show the product fit to the user, such as with clothing or eyewear, by superimposing it over their face or body. This can create a more engaging experience and thereby improve the conversion rate.

Use in Enabling Product Sales

Virtual reality (VR) and mixed reality (MR) can play a slightly different role. A real-estate agency might want to give a guided tour of a bungalow to a prospective client. With VR, this could be done while both are in front of their computers and away from the site. Similarly, a brick-and-mortar antique dealer could use VR to show his products to a prospect having VR equipment at home.

In Combination with AI

Digital reality can become even more useful when it leverages AI. A merchant might want to generate a video that has a professional look with the product visible from all angles. To achieve that, you can begin with a raw video showing the product being held by a person who is displaying the product from various angles. AI could then be used to remove everything except the product itself, resulting in a clean background and showing the product from the desired angles.

> Virtual reality (VR) and mixed reality (MR) can play a slightly different role.

Low-Code/No-Code Development

Expansion of Market

Demand for low-code/no-code solutions is growing rapidly. From a market size of $16 billion in 2021, the market is expected to grow at a 28.8% CAGR through 2030.[10] Approaches to low-code development such as a parameterized metadata-based pipeline, a templatized data pipeline, or a UI-based dynamic pipeline offer enterprises some amount of choice. Some, such as a UI-based dynamic pipeline, have the added advantage of providing a large number of out-of-the-box components.

Demand for Easier Solutions

Data is valuable to enterprises in countless ways, so most modern enterprises build and manage data pipelines to bring data from a variety of sources. When it is time to build new pipelines and add additional data sources, they need a way to do so with minimal time and development effort. Low-code and no-code solutions enable businesses to meet that need. Given the potential requirement to use low-code or no-code solutions to develop particular projects, ISVs must be prepared.

Transformation of Code Bases

As discussed earlier, many enterprises are struggling to jettison the burden of legacy software. One of the ways to reduce the workload of maintaining and upgrading software is to use a low-code/no-code approach as part of the application modernization.

28.8%
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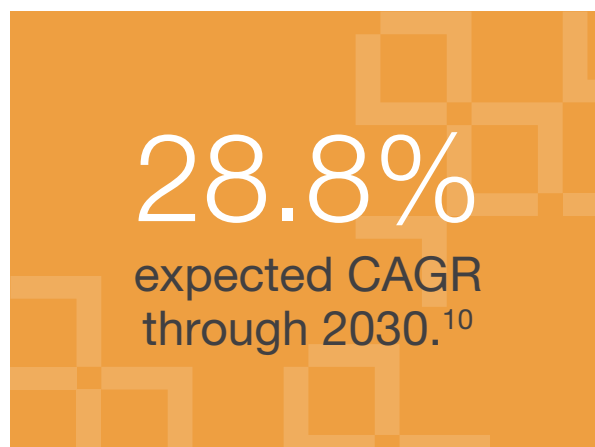
On the Horizon for ISVs

Blockchain and Web3.0

The intersection of blockchain and Web 3.0 is beginning to drive innovation across multiple industries. GlobalLogic has partnered with clients on products such as smart contracts, NFTs, and tokenization services.

For example, GlobalLogic offers smart contracts architecture, development, and optimization services for public (Ethereum, Algorand), private (multichain, hyperledger fabric, EVM based layer2), specialized (Algorand, Flow) and hybrid blockchains. GlobalLogic provides deep expertise in smart contract architecture and programming languages such as solidity, goLang, Teal, NodeJs, Python, and Rust.

This is taking shape in forms such as an enterprise crowdfunding platform we developed for an innovation and R&D company. The client was looking to create an internal platform to encourage their culture of innovation and entrepreneurship among client departments and employees. The idea was that stakeholders will find internal innovative projects using a Kickstarter-like approach.

Blockchain technology was selected as the best-matching existing vehicle for storing and transferring value. The resulting platform serves as the central pool of funding available for initiatives and enables distribution between decision-makers based on their votes. The use of smart contracts in the solution enables certain funds to be automatically transferred to a team's wallet once required criteria are met.

> Though they are still at a relatively early stage of maturity, technologies such as blockchain, Web 3.0, edge computing, and sustainability solutions will have a growing impact on ISVs.

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Edge Computing

GlobalLogic provides our clients with consulting services for edge architecture and edge integration leveraging our technology expertise in cloud scale, security, connectivity, cognitive computing, AI/ML, AR/VR, internet of things (IoT) and blockchain. We also enable companies to build secure edge services on top of their edge infrastructure (including embedded devices, smart meters, IoT gateway, edge internet, sensor nodes, and nano servers) and technologies (such as IIoT, computer vision integration, vehicle analysis, and multi-access edge computing).

One way GlobalLogic assists clients is through the use of accelerators. For example, we developed a cloud-native and open-source platform that allows clients to remotely deploy, control, and manage ML models on IoT devices in near-real time. It also enables tracking and visualizing performance in a 360-degree view. Another way we support clients is through development and testing services in areas such as cloud computing (e.g., big data analysis, data warehousing, business processes), fog computing (e.g., data analysis and data reducing), network decentralization, security, and process automation, all on edge computing infrastructure.

Sustainability Software

To calculate, understand, and percolate short-, medium-, and long-term performance and impact ESG, organizations are increasingly turning to sustainability software. These solutions help organizations calculate risks and ascertain mitigation strategies to become truly sustainable and responsible organizations.

GlobalLogic sees this beginning to take shape already. We partnered with a client in the industrial hemp industry to build a blockchain-enabled Supply-Chain-as-a-Service platform offering tools for businesses to ensure agricultural sustainability, carbon offsets, credits, and tokens. To ensure trust between players, users enter, and upload necessary credentials, licenses, and certifications as part of the onboarding process. This solution is fostering a streamlined marketplace spanning growers, processors, manufacturers, and consumers, to enable the industry to grow more rapidly and profitably.

Conclusion

T he global market for enterprise ISVs is growing fast. The need for digital product engineering in areas ranging from infrastructure software to tools and utility software and business applications for the enterprise is accelerating. But as technologies evolve, ISVs may find it increasingly difficult to find and maintain the expertise required for highly specialized fields, and harder still to deliver innovative solutions at velocity and at scale.

We have seen successful ISVs forge many new paths ahead. In addition to having a clear vision of the role they wish to play in moving the market, the key requirement for ISV success has proven to be choosing the right partner. They should have end-to-end digital product engineering capabilities in designing and building innovative products, platforms, and digital experiences. They should also be conversant in emerging areas such as blockchain and Web 3.0. Most importantly, they should have a profound understanding of the ways they can help you achieve success.

To learn more, or to speak with one of our experts, please reach out to info@globallogic.com.

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About GlobalLogic

With more than 20 years of experience in software product development and engineering services, GlobalLogic helps some of the world's leading enterprise ISVs create world-class experiences, accelerate new product and feature development, and capture new revenue streams. More than 3,000 engineers from GlobalLogic have helped with 400+ applications built from scratch for 100+ media clients leveraging 15+ engineering labs around the world.

3,000+
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400+
delivered projects

100+
clients

15+
engineering labs