

Information Services | Digital Operations

Transitioning to the Microenterprise

By unbundling their organizations, information service providers can tap into new digital revenue opportunities.

Executive Summary

Diversification gives information service (IS) providers the opportunity to try a new look: Among the companies' marketable products are not just the content they own but also their editorial processes and workflows. The one-two punch of content and structural assets is a potent strategy for penetrating new markets.

Diversification, however, requires a new approach to monetizing information.

Microenterprises are the answer. By unbundling their organizations into small, independent business units formed by repurposing discrete components, IS providers can mix and match their assets, pairing them with affordable technology to deliver the content and insights customers seek.

Target markets will be the burgeoning numbers of businesses with content needs that can benefit from editorial processes and workflows but which have limited in-house technology. Such companies often spend huge amounts on workarounds.

The business advantages include expansion into the business-to-consumer (B2C) sector as well as diversification into new B2B markets. Equally compelling for IS providers is the ability to double down on the use of artificial intelligence (AI) and advanced analytics to better monetize their information inventory.

This white paper details the potential of microenterprises and the role that marketplaces play in enabling them. In addition, we provide an inside look at how IS organizations can adopt a four-stage process to make the transition.

By unbundling their organizations into small, independent business units formed by repurposing discrete components, IS providers can mix and match their assets, pairing them with affordable technology to deliver the content and insights customers seek.



Diversification: The logical next step for IS providers

The IS industry is at an inflection point. It remains formidable, with successful players boasting long histories and enviable margins. Yet revenue growth has slowed¹ and the open-access movement continues to build steam.² In Europe, Plan S³ is looming.

The industry has a natural advantage, however. In fact, it has two: Among its saleable products are not only the content it owns but also its structural assets such as editorial workflows and processes. The first is obvious, the second far less so.

To IS providers, editorial workflows and processes are an everyday part of their operations. To organizations outside the industry, they're potential gold. As businesses across all sectors struggle to manage the tidal wave of data and content, they need reliable, time-tested publishing frameworks.

It's a readymade market opportunity for IS providers.

Parlaying the powerful combination of content and structural assets in the digital marketplace is also a logical next step in IS providers' evolution.

Having already transitioned from publishing books to digital content, IS providers are now poised to position themselves as suppliers of digital information, with their primary offering being tailored search engines catering to their exclusive content and analytical add-ons from within their content.

The problem? IS providers' offerings have been purely content-centric, even as such content has morphed (see Fig. 1, next page). To evolve digitally and compete with digital natives, IS players need to expand their slate of offerings to include more specialized services and technology that undergirds and surrounds content – such as algorithms as-a-service, affordable content technology, etc.

For IS providers, diversification is a way to create new, more granular units of sale and penetrate new markets.

At the center of it all is a focus on the end customer.

Enter the technology-first companies

When it comes to content, digital interlopers such as Netflix and Amazon first elbowed into the media and entertainment sector, but their dominance has worked against the conventions of the IS sector. Both companies launched their businesses with publicly sourced information and content. Their influence extends to content packaging as well as distribution. Amazon's idea of renting textbooks launched a booming industry.⁴ After attracting loyal customer bases, the companies moved into creating highly successful proprietary content.

The evolution of IS technologies

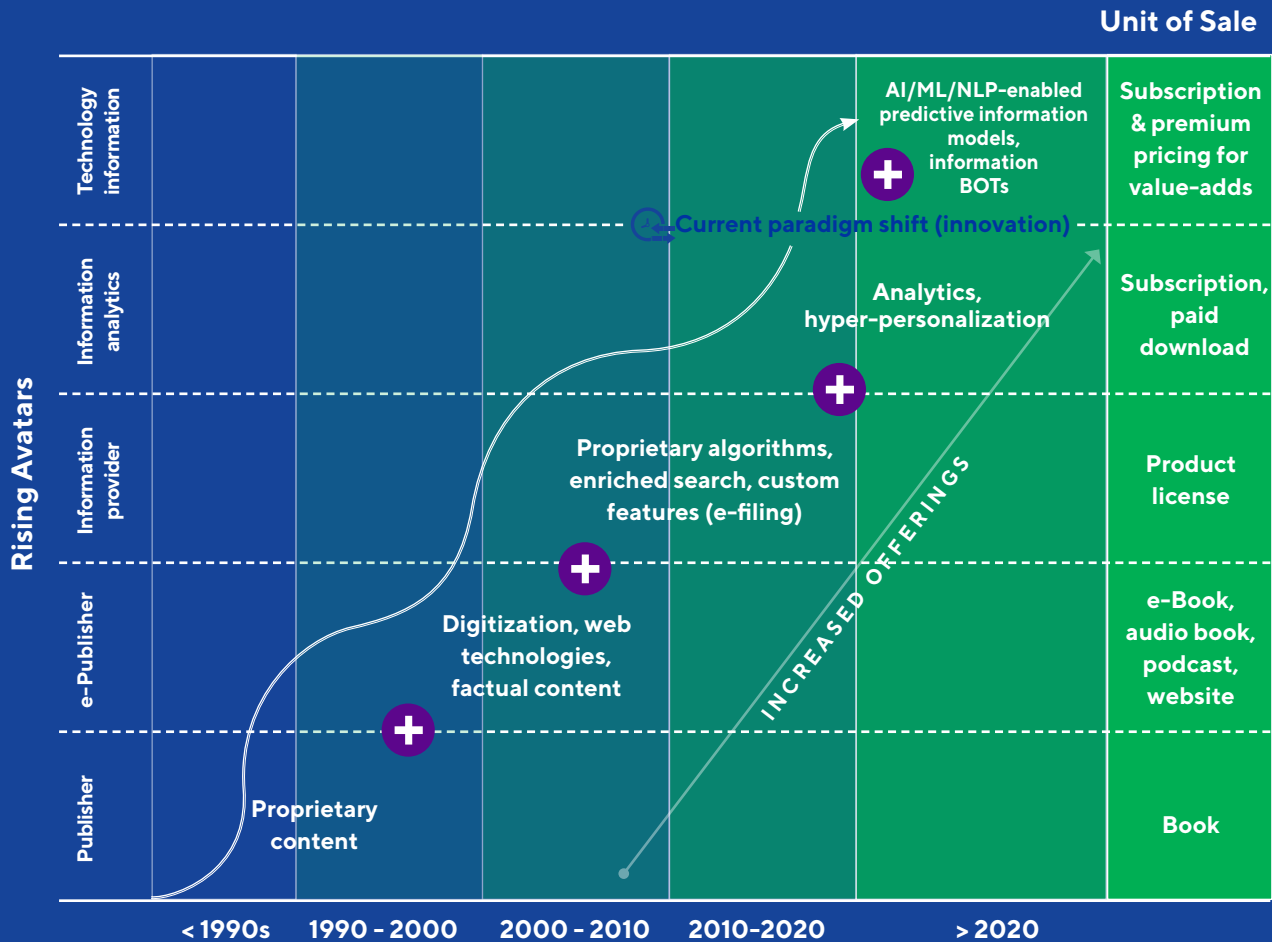


Figure 1

Perhaps the greatest difference the born-digital companies bring to content is a customer-centric approach. Through convenience and personalization, they deliver content packaged in different shapes and sizes: subscriptions, single-episode purchases, binges, downloads. Customers get what they want – and keep coming back.

It's an approach that contrasts sharply with traditional IS companies. Digital businesses define and continuously redefine their offerings through the lens of the customer. The IS establishment takes the opposite tack: It seeks customers for its offerings.

Yet much of the change looming for the B2B-focused IS industry arises from the empowered B2C consumers that Netflix and Amazon helped to cultivate. Just as every B2C industry has remade itself to offer greater customer convenience and personalization, similar reinvention is now rippling through B2B. Millennials are driving major changes in B2B commerce.⁵ Boundaries are shifting, and IS providers are no exception. Success means taking heed of the digital-first playbook (see Figure 2, next page).

Forces at work in the information industry



Omnplatform content delivery

Seamless, consistent delivery of information and data across connected devices and platforms.



Outcome economy

Consumers want insights as well as information. That means unlocking the value of structured and unstructured content to bundle information in new ways.



Internet of "Me"

Through the personalization of apps and services, the consumer is at the center of every digital experience.



Rise of the platform revolution and the intelligent enterprise

Platforms enable new interactions and partnerships, and they help turn big data into smart data. Through them, enterprises can be more innovative and gain greater operational efficiency.

Figure 2

A new view of content

Our culture's rapidly evolving view of content and information is also profoundly affecting the IS industry. In the digital world, cordoned-off content is unacceptable: Consumers expect access to information to be instant and if not free then at least affordable. Through the ubiquity of smartphones and tablets, they expect information to be in the palms of their hands, literally. Tolerance is crumbling for the walls that traditionally surround high-quality content.

Equally dramatic are the changing perceptions of what qualifies as authoritative content. Today's content is fluid. Leading voices are found on many channels. Young consumers take a broad view of what's considered trustworthy content. One data point certain to send a chill down the spine of every IS leader: 35% of those ages 15 to 22 predict user-generated content (UGC) will soon have more credibility⁶ than content from companies and independent sources.

Filling the white space in the customer journey

Indeed, content continues to be sought after but proprietary content is no longer enough of a draw. Consumers seek the contextual answers digital has trained them to expect. Part of what's fueling the rise of UGC are the insights and flexibility it delivers – and young consumers demand.

Insight occurs at multiple touchpoints in the content journey, especially in connection with search capabilities. Unlike the conventional linear content searches of the past, insight searches are fluid. They flow through touchpoints and destinations beyond proprietary perimeters and outward to fragmented public and crowd-sourced information.

For IS providers, insight searches represent important white space, areas of market opportunity they can meet. The last mile of the information journey is marked by multiple touchpoints – places where IS companies need to be but aren't. It includes additional non-content sources of information such as search engine results that help guide the customer. Last-mile connectivity is a key stretch in the customer journey to stand out and make a meaningful impact.

Exploiting microenterprises' full potential

By unbundling their organizations into microenterprises, IS providers can address digital demand in a nonlinear model at multiple industry touchpoints. They can be where customers expect them to be.

What exactly are microenterprises? They're independent business pods, formed by rearranging and repurposing discrete components within large organizations. Their offerings are aimed at targeted customer needs and priced as a service.

Microenterprises provide organizations with the flexibility to cater to growing industry demands. The most compelling example today is Haier, the world's largest appliance maker, which has divided itself into 4,000 microenterprises,⁷ all under Haier's corporate brand. Its goal has been to become less vulnerable to unconventional competitors and more open to new market opportunities. The results are stunning: Over the past decade, the gross profits of Haier's core appliance business have grown by 23% a year, and the company has created \$2 billion in market value from new ventures.

For IS providers, creating microenterprises is the first step toward diversifying from a product-centric company to a service-based digital ecosystem. The process of unbundling lets IS organizations mix and match content with affordable technology to deliver insights. By repackaging data, information and services, they can meet demand in new segments.

Putting microenterprises to work

Microenterprises are the vehicles by which IS companies' processes, workflows and technology backbone come into play. By breaking out the discrete components, companies can package and sell them into new markets.

For example, editorial workflows can be sold as a service for basic corporate publishing needs such as intranets. The "known people database" that most information companies maintain is a helpful tool for solving author ambiguity issues in the IP industry. Taxonomy frameworks used to catalog unstructured information are a fit for the text-heavy needs of industries such as pharmaceuticals, which gathers and collates unstructured data for use in clinical trials.

The sweet spot for IS microenterprises will be industries that can benefit from editorial processes and workflows but which lack the technology in-house and often spend millions of dollars on workarounds. Equally important, our work with microenterprises underscores early wins for IS providers that go beyond the market opportunities. (For a deeper dive, see Quick Take, page 12.)

The message from traditional brands that have adopted digital business models? Go bold or go home. After recasting itself⁸ as a solutions provider, Michelin is now as much a technology company⁹ as a tire maker. White-glove investment firm Goldman Sachs pivoted to the masses with its Marcus online savings bank – and expects it to generate \$1 billion in annual revenue by the end of 2020.¹⁰

Marketplaces: Where unbundling meets demand

Marketplaces are the mechanism through which microenterprises target customers. The marketplace economy is already a big part of our lives – look no further than Amazon and Alibaba. In the information and insights industry, knowledge marketplaces are already at work supporting the innovative business models that power startups such as Maven Research¹¹ and Gerson Lehrman Group.¹²

For incumbent IS organizations that transition to microenterprises, marketplaces will play a different role. At least initially, they will likely serve as in-house incubators, acting as internal trial platforms where microenterprises can try out ideas for combining content, processes and innovative units of sale such as dynamic pricing. They'll be a testing ground for offerings delivered as-a-service and on-demand. Once products and services have been tested through the internal marketplaces and shepherded through the development process, they can be launched into the open market by companies' sales and marketing functions.

Quick Take

Microenterprises' Early Rewards

Small entrepreneurial groups have the ability to make big leaps in IS product development.

When we partnered with an IS company on a recent microenterprise, it realized several early wins from the pilot. The company's top talent flocked to the project, which is a high-volume extraction initiative for a provider of property information for the real estate and banking communities. The IS company's best data architects and software developers sought to be part of the innovative initiative, helping to energize the project and boost its chances for success. The pilot is kickstarting the company in other ways, with the director of finance exploring options for pricing models and the vice president of business development supervising the restructuring of contracts for as-a-service delivery.

As the teams collaborate to apply the IS company's extraction process to the millions of documents the property-data business churns through every week, the IS provider has already discovered new ways of work that it can apply to its own business. Until it began work on the client's project, the company's extraction process was unable to isolate certain aspects of the data it drew from. As a result, it often over-extracted information and wound up storing larger chunks of data than it actually needed. Through the teams' work on the property-data project, it has found a way to delimit the data and decipher only the information that's needed, lowering its storage needs and costs.

The strategic framework behind microenterprises

Microenterprises challenge assumptions. Implementing them requires more than a plan. It requires rethinking your organization's strategic imperatives.

I Expansion into the B2C sector: In the digital marketplace, quality information is no longer restricted to buyers with deep pockets. The pay-as-you-go pricing structure that's at the heart of microenterprises makes the model a natural fit for B2C. This connection with consumers was the missing last-mile connectivity for IS providers. It enables the services to have a meaningful impact on real people.

B2C won't replace IS companies' B2B model for institutional buyers; it will be an added revenue stream, allowing individual consumers to pay a nominal price for specific, high-quality services. IS companies have different options in B2C entry. They can diversify their offerings and rebrand, as Michelin and Goldman Sachs did, or they can maintain their brand by creating spin-offs under a parent group, as Haier has done.

I Diversification into new B2B industries: Microenterprises enable expansion into new industries when revenue from traditional segments has plateaued. (For more information, see Stage 2 in the next section.)

I Personalized offerings, courtesy of AI: For traditional IS providers, a purchase concludes the customer experience. For digital companies, it's just the beginning. Adopting AI-fueled advances such as recommendation engines lets IS providers close the gap, capitalizing on the trail of data and patterns that each marketplace transaction leaves behind to continuously redefine offerings and create new ones. In so doing, they gain an equal footing with all-digital businesses and the opportunity to cultivate deeper, more seamless customer experiences. Advanced AI in the form of ML can also play a huge role in maintaining the petabytes of data that compose the microenterprise. The technologies enable the platform to learn and grow on its own and respond more intuitively and intelligently.

I Entry into the expert economy: Marketplaces also act as hubs for connecting subject matter experts with clients who need their expertise. By pairing platforms with knowledge-sharing, the expert economy¹³ has taken off. A 2018 study¹⁴ reported that expert industry leader Gerson Lehrman Group (GLG) has almost as many experts (600,000) as Lyft (700,000) and Uber (750,000) have active U.S. drivers. Other entrants in the on-demand expert network sector include Guidepoint¹⁵ and Coleman Research.¹⁶ With their technology muscle and sector expertise, IS providers have a natural role in the expert economy.



For IS providers, the new strategies are a means to two important ends. One is the launch of an innovation culture. Microenterprises offer an openness that IS providers can use to nurture start-up cultures and encourage free-flowing ideas. Marketplaces can serve as places to reinvent existing content and structural assets and also as incubators for brand new ideas.

The second end result is the promotion of the revenue multiplier effect. The opportunity to contribute to innovative projects is a key motivator for employees – and a driver of top-line revenue. According to a study in the *Harvard Business Review*, boosting employee motivation can increase gross profits by 47%.¹⁷ Microenterprises' potential to improve motivation creates a force multiplier that levels the playing field for IS providers and digital competitors.

Next steps: Four stages to transition to microenterprises

Making the transition to microenterprises is an iterative process that enables your organization to accelerate its goal of operational excellence.

Stage 1

Rethink: Take stock

The first step toward the microenterprise model is inventorying your organization's unbundled assets. Most organizations are surprised by the range of granular components they uncover. For example, on-staff expertise often includes consulting, editorial-as-a-service specialists and niche content creators. IS providers also have a wealth of processes to inventory, from frameworks and algorithms to taxonomies. Their arsenal of digital tools is extensive, covering not just databases and workflows but also aids for search such as extraction enablers and semantic analyzers.

Stage 2

Reimagine: Map each component's market potential

What's the market need for each asset you've identified? Developing a go-to-market strategy includes targeting potential use cases and segments along with business models for service delivery. Gaps identified in the portfolio can also be addressed through new offerings.

Figure 3, next page, reveals how IS providers can repurpose their assets to meet the needs of other industries.

Recasting assets

Industry	Market need	People	Processes	Tools
Insurance	<ul style="list-style-type: none"> Claims organizations struggle to process large amounts of unstructured, free-form text. 	<ul style="list-style-type: none"> Establish editorial office to streamline processing. 	<ul style="list-style-type: none"> Reusable frameworks for content normalization. Editorial-as-a-service. Taxonomies-as-a-service. Standard and AI-enabled extraction modules to identify and collate standard fields from documents. 	<ul style="list-style-type: none"> Structured workflows. Any working BOTs that perform these functions.
Healthcare – clinical trial insights	<ul style="list-style-type: none"> Patient information is mostly unstructured, in forms such as test results, treatment guidelines and caregivers’ notes. 	<ul style="list-style-type: none"> Establish editorial office to streamline the process. 	<ul style="list-style-type: none"> Reusable frameworks for content normalization. Editorial-as-a-service. Taxonomies-as-a-service. Standard and AI-enabled extraction modules to identify and collate standard fields from documents. 	<ul style="list-style-type: none"> Predictive analytics.
Higher Education	<ul style="list-style-type: none"> Higher education providers acquire content that’s structured but often not effectively tagged across content types, limiting cross-section views across content lakes. Most content is consumed and sold in silos. 	<ul style="list-style-type: none"> Establish editorial office to streamline the process. Taxonomies as-a-service. 		<ul style="list-style-type: none"> Big data algorithms embed taxonomies across multiple content types.
Research and Intellectual Property	<ul style="list-style-type: none"> Author ambiguity is a challenge for citation databases. They need a system of unique identifiers for attribution so colleagues, collaborators and funders can find each other. 	<ul style="list-style-type: none"> Establish formal known people database (KPD) process to collect and validate identity. KPD is an inherent process within IS industries, built and maintained to create valid search tags. 	<ul style="list-style-type: none"> Build and maintain KPD as-a-service. 	<ul style="list-style-type: none"> Reusable elements of KPD database sold as license taxonomies across multiple content types.

Figure 3

Stage 3

Rewire: Estimate time-to-market

The rubber meets the road when it's time to assess how to decouple specific components from the larger product assembly line and offer them individually. Culling out the technical components and enabling them for multitenancy is an engineering-intensive activity. Each company's technology deck will determine the decisions they make, such as whether an application will be migrated to the cloud or replicated in the cloud through a clone.

Identify the estimated time-to-market for each offering. Using the cost basis of engineering and labor, define the costing model for each sellable component. Once the reengineered component(s) are matched to a market opportunity and priced, they become an independent business pod and thus a microenterprise. Choose quick, straightforward opportunities to prime your microenterprise marketplace.

Stage 4

Reset the organization

Unbundling services alone doesn't ensure market success. Microenterprises require shifts across the value chain in terms of an IS organization's culture, business model and ecosystem. It's not a one-time change. Instead, you'll need an iterative organizational change management plan to help reset internal processes. For example, your engineering and infrastructure will require modification to accommodate multitenancy. Acquiring, servicing and maintaining the new customer base will mean retooling marketing and sales functions with new skill sets to support the sale of smaller components.



Endnotes

- ¹ Information Industry Outlook 2018, Outsell, <http://info.outsellinc.com/rs/422-MBV-091/images/Outsell%20CEO%20Topics%20Info%20Industry%20Outlook%202018%20Outperform%20and%20Out%20Sell.pdf>.
- ² "Open Access Publishing is Gaining Steam, and the National Cancer Institute is Now On Board," *Massive Science*, Aug. 28, 2019, <https://massivesci.com/notes/open-access-publishing-gaining-steam-uc-system-nci-science-europe/>.
- ³ https://en.wikipedia.org/wiki/Plan_S.
- ⁴ "College Textbook Prices Going Down," *The Morning Call*, Aug. 2, 2019, www.mcall.com/business/consumer/sns-201908011732-tms-kidmoneyctnsr-a20190802-20190802-story.html.
- ⁵ "How Millennials are Changing B2B Commerce," *CIO Magazine*, May 1, 2018, www.cio.com/article/3269572/how-millennials-are-changing-b2b-commerce.html.
- ⁶ "Gen Z: The World by the Thumbs," Cognizant, May 2019, www.cognizant.com/content/dam/Field_Marketing/genz/Cognizant-eBook-2018.pdf.
- ⁷ "The End of Bureaucracy," *Harvard Business Review*, Nov.-Dec. 2018, <https://hbr.org/2018/11/the-end-of-bureaucracy>.
- ⁸ "From a Tire Company to an Innovative Solutions Provider, Michelin Grows Its Legacy," *FreightWaves*, June 1, 2018, www.freightwaves.com/news/technology/michelin-is-no-longer-just-a-tire-company.
- ⁹ "The Michelin Man is Getting a Lot of Traction," April 5, 2019, <https://seekingalpha.com/article/4253035-michelin-man-getting-lot-traction>.
- ¹⁰ "Goldman Sachs: Can CEO David Solomon Get the Storied Bank to Grow Again?" *Fortune*, Nov. 14, 2019, <https://fortune.com/longform/goldman-sachs-ceo-david-solomon/>.
- ¹¹ www.maven.co/.
- ¹² <https://glg.it/>.
- ¹³ "MBAs and PhDs by the Hour: The Expert Economy Takes Off," *Forbes*, July 6, 2018, www.forbes.com/sites/forbesbusinessdevelopmentcouncil/2018/07/06/mbas-and-phds-by-the-hour-the-expert-economy-takes-off/#5c21da0538b0.
- ¹⁴ "The Rise of the Expert Economy," Civic, May 2018, https://dfbaaa3e-0ce2-4de0-929d-4611a51646be.filesusr.com/ugd/03cac8_eb69a73ab4cc4141af4b95880fe084b7.pdf.
- ¹⁵ www.guidepoint.com/.
- ¹⁶ www.colemanrg.com/.
- ¹⁷ <https://hbr.org/2015/11/how-company-culture-shapes-employee-motivation>.

About the authors



Ganesh Venkataraman

Global Head, Cognizant Digital Information Services

Ganesh Venkataraman is one of the very early members of Cognizant's information services (IS) business, and he has grown through the ranks to lead this practice globally today. As a senior leader, Ganesh works closely with the CxOs of all our IS customers to help them achieve the dual mandate of "growing the business" and "changing the business." By virtue of working with customers for over 15 years, Ganesh has a strong understanding of the market dynamics and its cascading influence on business performance, which helps him to be a trusted advisor for his clients. As information/content is the backbone of this industry, he has developed an academic interest in

"content transformation journey" of IS customers. This is a vital "change the business" approach to potentially define the future state of a customer's business. Today, Ganesh works with leaders from F&A, LR and STM information companies, as they traverse their complex digital journey from being a traditional publisher to digital information provider to a future state omnicontent provider. He holds double master's degrees, in information management and computer science, and an MBA, all from Bharathidasan University in India. Ganesh resides in Raleigh, NC. He can be reached at Ganesh.Venkataraman@cognizant.com | [linkedin.com/in/ganesh-venkataraman-766a601/](https://www.linkedin.com/in/ganesh-venkataraman-766a601/).



Venkataramanan KS

Sr. Consulting Manager, Digital Information Services Practice, Cognizant

Venkataramanan KS is the Senior Consulting Manager for Cognizant's Digital Information Services (IS) Practice. He has 16 years of professional experience and is responsible for developing the company's consulting capabilities in the information services domain across sectors such as legal, scientific, technical and medical, and content publishing. Venkat has also worked with leading legal service providers, media and education customers across various geographies, including the U.S., UK and Australia. He has a bachelor's degree in electronics and an MBA from Bharathidasan University, Trichy. A certified Scrum master (CSM) and SAFe Agile Certified, Venkat can

be reached at Venkataramanan.KS@cognizant.com | www.linkedin.com/in/venkataramananks/.

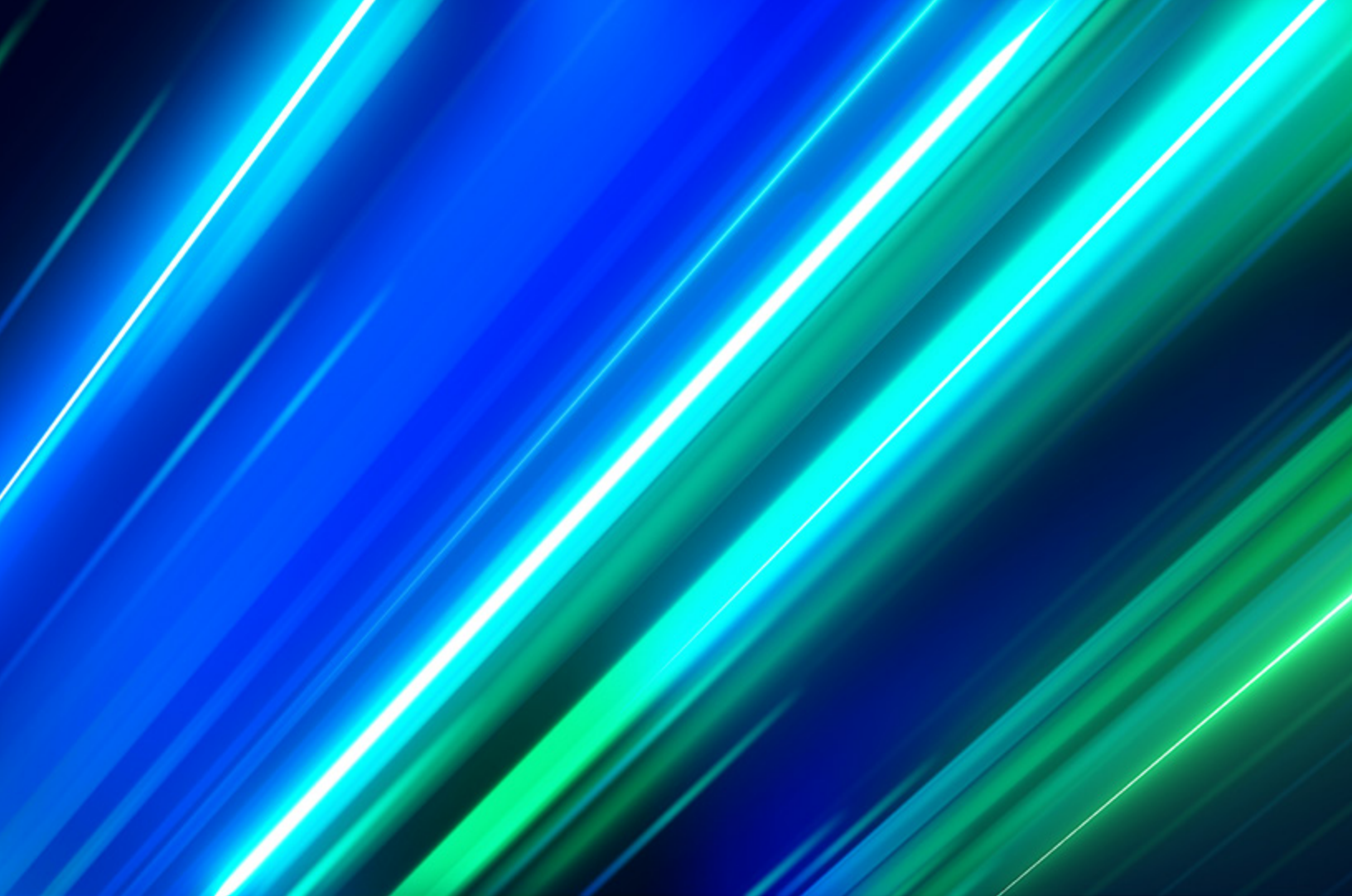


Shyamkrishnan Balasubramanian

Sr. Consultant, Digital Information Services Consulting Practice, Cognizant

Shyamkrishnan Balasubramanian is a Senior Consultant within Cognizant's Digital Information Services (IS) Consulting Practice. He has 10 years of experience helping customers in the IS industry transform into digital natives and build a unified digital customer experience. His areas of expertise include product lifecycle management, data and content ecosystem transformation, and business platforms development. His experience spans multiple domains, from information services (legal, scientific, technical and medical publishing) and education publishing. He has an engineering degree from VIT, Vellore, and an MBA from BIM, Trichy. He is also a certified business analyst and a certified

Scrum product owner. He can be reached at Shyamkrishnan.Balasubramanian@cognizant.com | www.linkedin.com/in/shyamkrishnanb/.



Digital Operations

Cognizant Digital Operations helps clients re-engineer, digitize, manage and operate their most essential business processes, lowering operating costs, improving user experiences, and delivering better outcomes and topline growth. Across the practice, we are creating automated, data-driven platforms and industry utilities. We help clients run better by applying traditional optimization levers, and we help them run differently by creating competitive advantage through making their processes digital-ready, which often leads to more effective operating models and corresponding topline revenue growth. Visit us at cognizant.com/cognizant-digital-operations.

About Cognizant

Cognizant (Nasdaq-100: CTSH) is one of the world's leading professional services companies, transforming clients' business, operating and technology models for the digital era. Our unique industry-based, consultative approach helps clients envision, build and run more innovative and efficient businesses. Headquartered in the U.S., Cognizant is ranked 193 on the Fortune 500 and is consistently listed among the most admired companies in the world. Learn how Cognizant helps clients lead with digital at www.cognizant.com or follow us @Cognizant.



World Headquarters

500 Frank W. Burr Blvd.
Teaneck, NJ 07666 USA
Phone: +1 201 801 0233
Fax: +1 201 801 0243
Toll Free: +1 888 937 3277

European Headquarters

1 Kingdom Street
Paddington Central
London W2 6BD England
Phone: +44 (0) 20 7297 7600
Fax: +44 (0) 20 7121 0102

India Operations Headquarters

#5/535 Old Mahabalipuram Road
Okkiyam Pettai, Thoraipakkam
Chennai, 600 096 India
Phone: +91 (0) 44 4209 6000
Fax: +91 (0) 44 4209 6060

APAC Headquarters

1 Changi Business Park Crescent,
Plaza 8@CBP # 07-04/05/06,
Tower A, Singapore 486025
Phone: + 65 6812 4051
Fax: + 65 6324 4051