

# Digital Engineering Services

A research report comparing provider/software vendor strengths, challenges and competitive differentiators

Customized report courtesy of:

**GlobalLogic®**  
A Hitachi Group Company

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Report Author: Tapati Bandopadhyay

### Digital services are recasting manufacturing and production sector.

The digital engineering space is witnessing a wide adoption of various technologies, spurred by the digital revolution in the manufacturing industry with its strong potential to drive productivity. Digital technologies that are used by production and manufacturing companies help create a data lake at all phases and stages of the production line, capturing every piece of information that can optimize or improvise the process in every dimension. On the other hand, traditional engineering methodologies are human intensive and offer reserved guidance and insights from the transactional data generated at every point.

Technology plays a crucial role in an open, complex and integrated engineering stream that spans various complex systems and platforms.

The processes, services and customer experience help define sustainability and relevance in the right market. Design and development activities have always been at the inception points of every engineering initiative. The U.S. has always led the way for adoption and innovation, given its large consumer base. Almost every new idea or concept is prototyped in this marketplace. Transformation and innovation are at their peak due to evolving work methods, and business models. As a result, service providers have changed their engineering strategies and adopted, developed and leveraged capabilities to cater to the core manufacturing and product development industries.

Digital services  
and engineering  
are a **powerful**  
combination.



## Executive Summary

Mid-sized and big multinational engineering clients have elevated their demands on digital engineering services. This has been the driving force for providers to respond quickly and effectively by restructuring their capabilities in driving technology adoption. As a result, digital engineering transformation services have emerged, including new capabilities to support digital product design in real time and other competencies around data-driven product lifecycle management, intelligent manufacturing operations, and digital customer experience delivery services. The increased adoption is further driven by AI-powered R&D, autonomous testing, simulations, augmented and virtual reality applications, digital twins and predictive machine learning. Intelligent supply chains, Industry 4.0, intelligent connected machines and IoT are some of the critical enablers for engineering services transformation.

Platformization is a major trend in the U.S., leading to new developments. Innovation and research have become favored investment areas to create opportunities. Large engineering service provider companies have now directed their focus toward building non-traditional technical platforms that act as an enterprise service bus to incorporate with and connect to any platform spanning from engineering to user experience. This is driven further by the demand from manufacturers and OEMs for such integrative platforms. Studying user patterns and consumption trends helps product companies intelligently improvise the connected product experience by encompassing complementing services and products through a platform.

Processes and workflow phases have been digitized and automated, especially for connected and intelligent operations in discrete and process industries. As

a result, integrated customer and user engagements see drastic changes at an operations level.

The infusion of technology from AI, machine learning and data analytics is improvising and presenting new dimensions to every engineering phase. Furthermore, the adoption of emerging technologies in the manufacturing and production sectors has spiked due to new consumer behaviors, an evolved set of requirements, new consumption mechanisms and educated clientele. As a result, there is constant pressure to re-engineer products that meet current and future market expectations.

Product definition in the engineering and manufacturing industries has changed after the digital revolution. Software products are an essential component of the entire value chain spanning from inception to experience. Almost all heavy manufacturing industries have

started to refine digital products and analyze how end users, consumers and markets leverage products. Engineering service providers are building software by using innovative digital architecture, components and programs to redesign solutions and products. They also leverage methodologies, frameworks and practices from every technology engineering domain.

Furthermore, augmenting human and machine-generated data and advanced analytics tools are fueling the metaverse with futuristic technologies that have a powerful relevance and prominence in the engineering industry, transforming the entire spectrum of products across industries for modern times. Such technologies have helped enhance the skill matrix and engineering competencies, creating avenues for technology skills in the engineering sector.



## Executive Summary

The use of emerging technologies has a drastic impact on many vital areas such as decarbonization that require immediate attention. The data points captured and processed through various dimensions at every transaction point provide insights that directly reduce friction, consumption and dissipation of natural resources, leading to optimized operations and high cost savings.

Digital engineering services form the core of manufacturing and production industries.



## Provider Positioning

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	<b>Design and Development (Product, Services, Experience)</b>	<b>Connected and Intelligent Operations — Discrete Industries</b>	<b>Connected and Intelligent Operations — Process Industries</b>	<b>Integrated Customer/ User Engagement and Experience</b>	<b>Platforms and Applications Services</b>
Accenture	Leader	Leader	Leader	Leader	Leader
Accolite Digital	Product Challenger	Not In	Not In	Product Challenger	Not In
Capgemini	Leader	Leader	Leader	Leader	Leader
Caresoft Global	Not In	Market Challenger	Not In	Not In	Not In
Cognizant	Leader	Leader	Product Challenger	Leader	Leader
Cyient	Market Challenger	Market Challenger	Market Challenger	Market Challenger	Market Challenger
eInfochips	Contender	Contender	Not In	Not In	Contender
EPAM	Market Challenger	Market Challenger	Market Challenger	Market Challenger	Market Challenger
e-Zest	Contender	Contender	Contender	Contender	Contender
GlobalLogic	Leader	Rising Star ★	Not In	Rising Star ★	Leader



## Provider Positioning

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	<b>Design and Development (Product, Services, Experience)</b>	<b>Connected and Intelligent Operations — Discrete Industries</b>	<b>Connected and Intelligent Operations — Process Industries</b>	<b>Integrated Customer/ User Engagement and Experience</b>	<b>Platforms and Applications Services</b>
HARMAN Digital Transformation Solutions (DTS)	Product Challenger	Rising Star ★	Product Challenger	Product Challenger	Product Challenger
HCL	Leader	Leader	Leader	Leader	Leader
Hexaware	Leader	Not In	Not In	Not In	Not In
Infostretch	Contender	Contender	Contender	Contender	Contender
Infosys	Leader	Leader	Leader	Leader	Leader
ltransition	Contender	Not In	Not In	Contender	Contender
KPIT	Not In	Market Challenger	Not In	Not In	Not In
LTTS	Leader	Leader	Leader	Leader	Leader
Mindtree	Product Challenger	Product Challenger	Product Challenger	Product Challenger	Product Challenger
Mphasis	Rising Star ★	Product Challenger	Not In	Leader	Rising Star ★



## Provider Positioning

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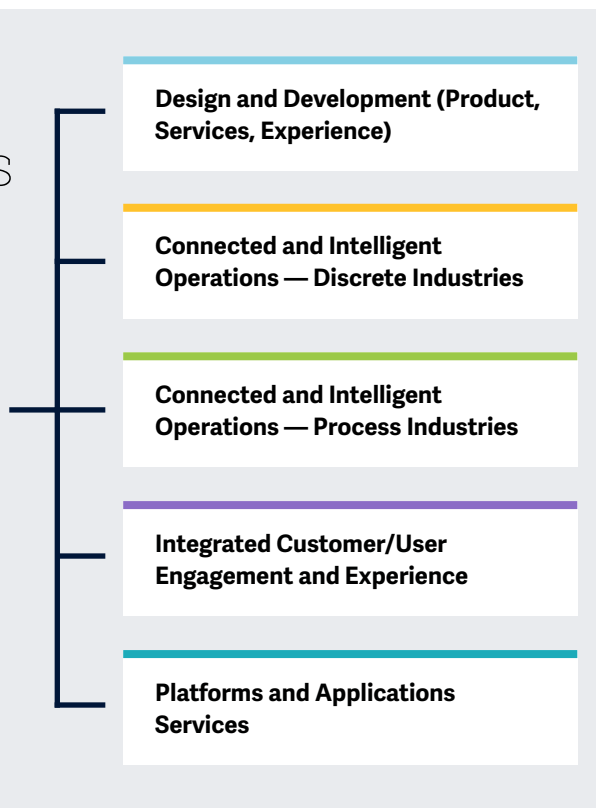
	<b>Design and Development (Product, Services, Experience)</b>	<b>Connected and Intelligent Operations — Discrete Industries</b>	<b>Connected and Intelligent Operations — Process Industries</b>	<b>Integrated Customer/ User Engagement and Experience</b>	<b>Platforms and Applications Services</b>
Persistent Systems	Product Challenger	Product Challenger	Product Challenger	Product Challenger	Product Challenger
Quest Global	Not In	Not In	Market Challenger	Not In	Not In
Tata Elxsi	Product Challenger	Product Challenger	Product Challenger	Product Challenger	Product Challenger
TCS	Leader	Leader	Leader	Not In	Leader
Tech Mahindra	Product Challenger	Leader	Product Challenger	Leader	Product Challenger
UST	Market Challenger	Market Challenger	Market Challenger	Market Challenger	Market Challenger
Virtusa	Product Challenger	Not In	Not In	Product Challenger	Not In
VVDN Technologies	Product Challenger	Not In	Not In	Product Challenger	Contender
Wipro	Leader	Leader	Leader	Leader	Leader
Zensar	Rising Star ★	Product Challenger	Not In	Rising Star ★	Rising Star ★





ISG perceives the Digital Engineering Services study as most critical in 2022.

Simplified Illustration Source: ISG 2022



### Definition

Engineering services have undergone significant transformations in the recent past, with paradigm shifts observed in manufacturing and product development across industry spectrums ranging from automotive and aircraft OEMs to health tech and smart infrastructure systems developers. The U.S is one of the epicenters of large manufacturing e' supply chain and sourcing organizations that have seen a disruption in the process and management areas. With the rapid industrial application of AI, machine learning, predictive analytics, IoT, 5G, intelligent automation and other technologies, foundational engineering services such as product innovation, ideation, strategy and design, R&D and testing services, operations, product life cycle management (PLM) and aftermarket services have become digitized.

Digital engineering service providers in the U.S market are responding quickly and effectively to such demands from mid-sized and large global engineering clients. The market has moved in a synchronized manner toward digital engineering transformation services, providing new capabilities to support digital product design in real-time along with data-driven PLM, flexible intelligent manufacturing operations and digital customer experience delivery services. Key enablers for these engineering services transformations include AI-powered R&D, autonomous testing, simulations, augmented, virtual and mixed reality (AR/VR/MR) applications, digital twins, predictive machine learning applied to manufacturing and intelligent supply chains, Industry 4.0, IoT, advanced driver assistance systems (ADAS), smart connected machines and AIoT (Artificial Intelligence of Things).



## Introduction

Changes in engineering services are further accentuated by the COVID-19 pandemic. For example, companies, industries and operations ranging from traditionally slow changing, highly regulated health tech and pharma R&D firms to manufacturing supply chains and distribution networks had to quickly reimagine, redesign and reinvent themselves by leveraging digital capabilities. The ISG Provider Lens™ Digital Engineering Services 2022 study analyzes these evolving trends with a deeper focus on product and service development, followed by connected and intelligent operations across discrete sectors such as automotive, aerospace, medical equipment for continuous and process industries. It also evaluates providers based on their customer experience on value delivery and associated competencies.



### Scope of the Report

In this ISG Provider Lens™ study, ISG covers the following five quadrants: Design and Development (products, services, experience)

Connected and Intelligent Operations – Discrete Industries, Connected and Intelligent Operations – Process Industries, Integrated Customer/User Engagement and Experience, and Platforms and Applications Services.

This ISG Provider Lens™ study offers IT-decision makers:

- Transparency on the strengths and weaknesses of relevant providers
- A differentiated positioning of providers by segments
- Focus on regional market

Our study serves as the basis for important decision making in terms of positioning, key relationships and go-to-market considerations. ISG advisors and enterprise clients also use information from these reports to evaluate their existing vendor relationships and potential engagements.

### Provider Classifications

The provider position reflects the suitability of IT providers for a defined market segment (quadrant). Without further additions, the position always applies to all company sizes classes and industries. In case the IT service requirements from enterprise customers differ and the spectrum of IT providers operating in the local market is sufficiently wide, a further differentiation of the IT providers by performance is made according to the target group for products and services. In doing so, ISG either

considers the industry requirements or the number of employees, as well as the corporate structures of customers and positions IT providers according to their focus area. As a result, ISG differentiates them, if necessary, into two client target groups that are defined as follows:

- **Midmarket:** Companies with 100 to 4,999 employees or revenues between \$20 million and \$999 million with central headquarters in the respective country, usually privately owned.
- **Large Accounts:** Multinational companies with more than 5,000 employees or revenue above \$1 billion, with activities worldwide and globally distributed decision-making structures.

The ISG Provider Lens™ quadrants are created using an evaluation matrix containing four segments (Leader, Product Challenger, Market Challenger and Contender), and the providers

are positioned accordingly. Each ISG Provider Lens quadrant may include service providers that ISG believes have strong potential to move into the Leader quadrant. This type of provider can be classified as a Rising Star.

**Number of providers in each quadrant:** ISG rates and positions the most relevant providers according to the scope of the report for each quadrant and limits the maximum of providers per quadrant to 25 (exceptions are possible).





### Provider Classifications: Quadrant Key

**Product Challengers** offer a product and service portfolio that reflect excellent service and technology stacks. These providers and vendors deliver an unmatched broad and deep range of capabilities. They show evidence of investing to enhance their market presence and competitive strengths.

**Contenders** offer services and products meeting the evaluation criteria that qualifies them to be included in the IPL quadrant. These promising service providers or vendors show evidence of rapidly investing in products/services and a follow sensible market approach with a goal of becoming a Product or Market Challenger within 12 to 18 months.

**Leaders** have a comprehensive product and service offering, a strong market presence and established competitive position. The product portfolios and competitive strategies of Leaders are strongly positioned to win business in the markets covered by the study. The Leaders also represent innovative strength and competitive stability.

**Market Challengers** have a strong presence in the market and offer a significant edge over other vendors and providers based on competitive strength. Often, Market Challengers are the established and well-known vendors in the regions or vertical markets covered in the study.

★ **Rising Stars** have promising portfolios or the market experience to become a Leader, including the required roadmap and adequate focus on key market trends and customer requirements. Rising Stars also have excellent management and understanding of the local market in the studied region. These vendors and service providers give evidence of significant progress toward their goals in the last 12 months. ISG expects Rising Stars to reach the Leader quadrant within the next 12 to 24 months if they continue their delivery of above-average market impact and strength of innovation.

**Not in** means the service provider or vendor was not included in this quadrant. Among the possible reasons for this designation: ISG could not obtain enough information to position the company; the company does not provide the relevant service or solution as defined for each quadrant of a study; or the company did not meet the eligibility criteria for the study quadrant. Omission from the quadrant does not imply that the service provider or vendor does not offer or plan to offer this service or solution.





Design and Development  
(Products, Services, Experience)

## Design and Development (Products, Services, Experience)

### Who Should Read This

The report is relevant for U.S.-based enterprises evaluating providers offering design and development services in digital engineering.

In this quadrant, ISG assesses the current market positioning of providers offering design and development services across products, services and experience. Enterprises partner with providers with end-to-end capabilities, from ideation to strategy to design and R&D, by leveraging their capabilities across design, prototyping and autonomous testing.

Enterprises partner with service providers that offer domain controllers that help in optimizing electronic control unit (ECU) hardware, reducing vehicle and harness weight and reducing costs. Enterprises are also embracing model-based structured developments that are feature-centric and aimed at reducing human errors while offering ease in upgrades and maintenance.



**Engineering leaders** should read this report to better understand the relative strength and weaknesses of digital engineering service providers offering design and development portfolios that can help lead the digital journeys for engineering practices.



**Manufacturing leaders** should read this report to develop a better understanding of the current landscape of digital engineering service providers in the U.S.



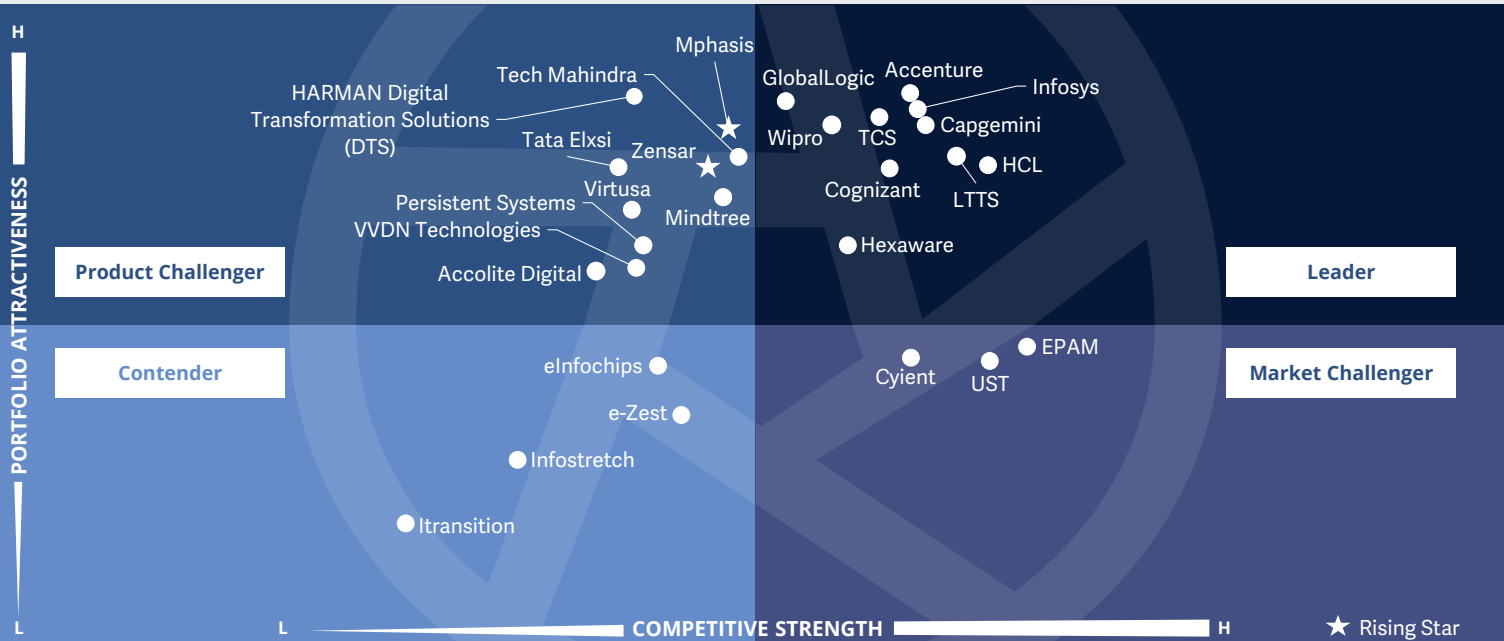
**Software development and technology leaders** should read this report to understand the positioning of digital engineering service providers and how their offerings can impact an enterprise's transformation initiatives, while identifying the benefits of embracing a digital journey in the engineering space.



Digital Engineering Services

U.S. 2022

Design and Development (Product, Services, Experience)



Product development and feature augmentation are critical enabling capabilities for digital businesses. This quadrant assesses a provider's ability to provide **integrated data-driven product design and development** augmentation, from ideation and strategy to design and experience.

Tapati Bandopadhyay



## Design and Development (Products, Services, Experience)

### Definition

This quadrant assesses a provider's ability to provide integrated hardware/software and new data-driven product development and feature augmentation, from ideation to strategy to design and R&D, by leveraging capabilities across rapid and agile design, prototyping and autonomous testing. Sample outcomes include faster product innovation cycles and time to market, smarter and more connected digital products, and an improved customer experience. The key enabling capabilities include design thinking and digital product design techniques.

### Eligibility Criteria

1. Breadth of lifecycle coverage: support for product strategy, new product design and development, integration and scaling, and support/maintain stages along with proven experience in new product ideation
2. Innovation and engineering: use of design thinking capabilities, new product/service strategy formulation requirements analysis and market feedback/research
3. Digital customer experience design competency: user/persona-based journey mapping, design and storyboarding, UI/UX design, i service design and interaction design
4. Design for X capabilities: addressing security, quality and sustainability by design for cost
5. Digital technology and capabilities: covering new product/service/experience design such as using digital twins, rapid prototyping and testing, PLM, data and model-driven engineering, virtualization, cloud-native design, AI, machine learning, human-machine interface (HMI), conversational AI, IoT and AIoT, edge and 5G platforms
6. Ability to ideate, strategize, design and develop new connected digital experiences: use cases of virtualreality and extended/immersive reality, additive manufacturing, 3D printing and other digital systems





## Design and Development (Products, Services, Experience)

### Observations

The traditional engineering design and development space has been transformed to accommodate the needs for agility in the digital world. Design and ideation are the critical starting points of the digital transformation journey for both end-user industries and service providers.

Two unique aspects have emerged in this quadrant. The first involves the need for integrative talent – a combination of domain, imagination and digital tech capabilities to bridge new business possibilities with the realities of technology supply. The second deals with the shifting focus from pure technology skills to design capabilities as a way to address the intensified talent war in this emerging space.

From the 40 companies assessed for this study, 27 have qualified for this quadrant with 10 being Leaders and two as Rising Stars.

### accenture

**Accenture's** strategy of self-funded capability building and acquisitions helps enterprises to leverage design services to pivot and platformize enterprise businesses.

### Capgemini

**Capgemini's** vision of “designing now for the next generation,” where digital technology is fully embedded, helps clients to create a value-based view to their business.

### cognizant

**Cognizant's** unique design approach of experience blueprinting, omnichannel, neumorphism and UX has helped clients to resolve current challenges or be a front runner in the industry.

### GlobalLogic<sup>®</sup>

A Hitachi Group Company

**GlobalLogic** has a strategic design studio that offers a holistic approach to experience design. It focuses on strengthening the business brand, enhancing client relationships, and offering coherent and intuitive services.

### HCL

**HCL** has a strong focus on delivering innovation across the digital engineering spectrum and building centers of excellence for industrial and user experience design solutions such as Stride

and Edge. are helping the customers to accelerate customers journey in creating great experiences.

### HEXAWARE

**Hexaware** leverages Mobiquity as a digital enabler to drive innovation for extended reality technologies and build other immersive techniques such as virtual tryouts for B2C and B2B markets.

### Infosys<sup>®</sup>

**Infosys'** engineering design capabilities, along with its Kaleidoscope Innovation™ through the acquired Wongdoody, offers experience design to deliver capabilities spanning from strategy to detailed designs across different channels and touchpoints to create compelling user-centric experiences.



## Design and Development (Products, Services, Experience)



**LTTS** offers unique skills beyond digital technology usage talent. Its imaginative engineering design approach helps in ideating and creating new digital business offerings for clients.



**TCS** offers the right set of technologies, contextual knowledge of customer processes and industry domain expertise to provide clients with new opportunities for improvement.



**Wipro** aligns its design and development capability with Engineering NXT across a range of next-generation digital technologies to help clients design and develop cutting-edge products and product-enabled services and experiences.



**Mphasis'** Front2Back™ (F2B) approach ensures innovation, speed, and engagement. Its Experience Tribe offering effectively combines design methodologies with next-generation technologies to deliver innovative and relevant experiences. Mphasis is a Rising Star.



**Zensar**, with the acquisitions of Foolproof and Indigo Slate, along with its internal capabilities and labs, combines three of its five strategic growth opportunities (SGOs). These include experience, engineering, and data and analytics. Zensar is also a Rising Star.





“GlobalLogic offers design-led digital engineering services to help create new value streams.”

*Tapati Bandopadhyay*

# GlobalLogic

## Overview

GlobalLogic is a Hitachi Group company HQ in San Jose, California, U.S. with operations in 14 countries. It has over 25,000 employees across 50-plus offices. It has a dedicated product engineering lab to build E2E ownership of product management and development, develop QA automation from scratch and build agile-mindset teams that ensure productivity, transparency and adaptability. In FY21, the company had more than 500 active clients.

## Strengths

### **Intersection of digital technologies:**

GlobalLogic differentiates itself with product, service design and development in a unique integrative approach of design-led digital engineering.

### **Business transformation to the digital world:**

Being design-led, GlobalLogic’s offerings cover a comprehensive range of clients and the entire business spectrum from traditional to digital-native enterprises. These client organizations are focused on building next-generation products and connected software platforms for their customers. The design-led approach

makes GlobalLogic a partner to drive end-to-end digital journeys for clients and not just a provider of piecemeal product design and engineering services.

### **Combining design and engineering expertise:**

GlobalLogic offers capabilities from design to engineering, augmented by digital technology stack-related skills around big data, analytics, security and mobility among other technologies. This helps clients to create brand new digital value streams for their targeted customer segments and markets.

## Caution

Given the breadth and depth of GlobalLogic’s design services offerings, clients should have a certain level of maturity in order to full leverage its capabilities. This should not only be manifested in terms of scale or size but more in the context of disruptive thought leadership and scope/value augmentation opportunities across client businesses.





# Connected and Intelligent Operations – Discrete Industries

### Who Should Read This

The report is relevant for U.S.-based enterprises evaluating providers offering connected and intelligent operations services for discrete industries such as automotive, manufacturing and aerospace.

In this quadrant, ISG assesses the current market positioning of providers addressing the needs of discrete industries with services for connected and intelligent operations. Enterprises here look for smart and digital technologies and methods to set up intelligent greenfield plants and operations.

Enterprises in the discrete industries look for partners that are focused on safety and sustainability in products and solutions with the aim of improving safety, enhancing productivity, minimizing waste and incorporating electric and hybrid technologies across automotive, industrial and aerospace applications. In addition, their focus is on reducing weight (light weighting) with expertise in additive manufacturing and structural adhesives and on combining interconnected technologies to reduce weight and create higher efficiency.



**Engineering leaders** should read this report to better understand the relative strengths and weaknesses of digital engineering service providers offering connected and intelligent portfolios for discrete industries that would help lead the digital journeys of engineering practices.



**Manufacturing leaders** should read this report to develop a better understanding of the current landscape of digital engineering service providers in the U.S.

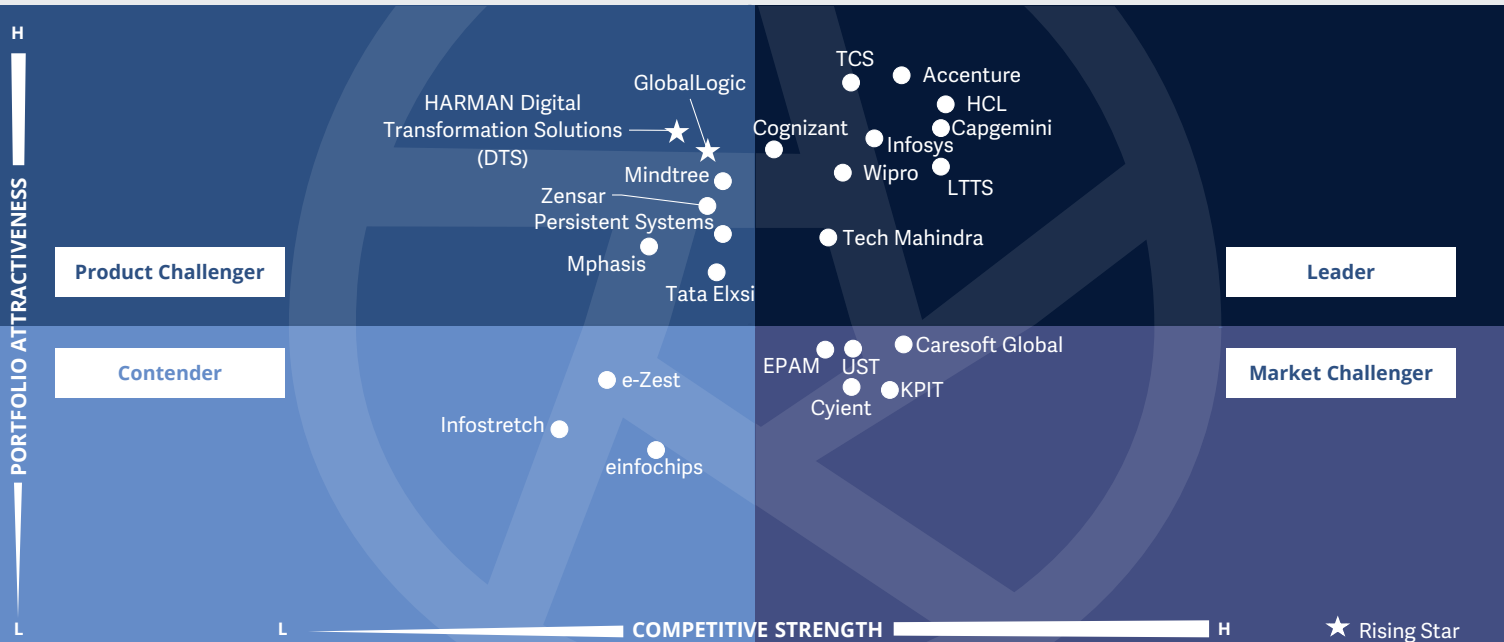


**Software development and technology leaders** should read this report to understand the positioning of digital engineering service providers and how their offerings can impact an enterprise's transformation initiatives, while identifying the benefits of embracing a digital journey in the engineering space.



Digital Engineering Services  
 Connected and Intelligent Operations – Discrete Industries

U.S. 2022



This quadrant assesses the providers' capabilities in delivering connected and intelligent operations in discrete industries. The **partner network, technology and new business/operating models** are crucial for efficient and effective operations.

Tapati Bandopadhyay



### Definition

This quadrant assesses service providers that offer intelligent operations to clients in discrete industries with legacy factories, production plants and industrial operations. They offer smart and new digital technologies and methods and help set up intelligent greenfield plants and operations.

### Eligibility Criteria

1. Proven experience in design, implementation and operations: technologies, methods, structures and processes used in the context of Industry 4.0, smart factories, smart production/operations and supply chain
2. Breadth and depth of coverage: in connected operations for discrete industries with proven examples
3. Experience in IT-OT integration: specifically across data, security and people aspects
4. Relevant technologies and capabilities include digital twin, digital thread, product lifecycle management (PLM), Industrial IoT (IIoT), data engineering, virtualization, cloud engineering, additive manufacturing, 5G and edge intelligence, manufacturing execution system (MES), manufacturing operations management (MOM).
5. Demonstrated digital supply chain implementation and operation: Quality monitoring using AI technology stacks covering computer vision, image and video processing, streaming analytics, deep learning applications, and integrated intelligent automation.
6. Asset performance, maintenance and lifecycle management: includes asset performance monitoring, and predictive maintenance
7. ESG compliance resources: support for environmentally sustainable smart operations



## Connected and Intelligent Operations – Discrete Industries

### Observations

Connected operations in discrete industries see a significant uptake in the usage of digital technology stacks by all Leaders and Rising Stars in this quadrant. Providers also report progress in terms of knowledge consolidation, domain-specific accelerators for digital transformation of operations, and verticalization of operations within the discrete industry space.

Processes and best practices for connected and intelligent operations have evolved quickly in discrete industries. Use cases for digital technologies such as IoT and smart factory have helped facilitate these transformations.

Leading service providers in this space have demonstrated the following three characteristics:

- These providers have built vertical specific knowledge assets to reuse them for known operational issues. The assets use predictive machine learning algorithms to preempt and prevent issues rather than initiating a response.
- Data across all IoT systems for monitoring, automation, etc. are integrated with knowledge platforms. The combined approach of data, machine learning and knowledge has made siloed functions connected and intelligent with vertical accelerators.
- More advanced providers are now adding autonomous intelligent solutions on top of automation and intelligent things, enabling key value propositions around industry 4.0 operations.

From the 40 companies assessed for this study, 24 have qualified for this quadrant with nine being Leaders and two as Rising Stars.

### accenture

Accenture's growth services are aligned to value-based commercial constructs and ensure tangible business outcomes.

### Capgemini

Capgemini's unique set of software frameworks help clients to leverage standard software and components to accelerate the development of connected solutions.

### cognizant

Cognizant's investment of \$2 billion in its inorganic growth strategy of acquiring companies such as ESG Mobility, Bright

Wolf, Zenith and TQS Integration has helped accentuate its position as a complete end-to-end service provider.

### HCL

HCL's commitment towards sustainability initiatives for four main areas, Renew Ecosystem, Redefine Workplace, Responsible Business and Repay Society, are in accordance with the Sustainable Development Goals (SDGs) set up by the United Nations.

### Infosys®

Infosys Digital Maturity Assessment Framework helps clients to assess their digital maturity and create roadmaps for successful digital manufacturing transformations and digital twin implementations.





## Connected and Intelligent Operations – Discrete Industries



**L&F** presents transformative case studies on connected and intelligent operation enablement with digital technology applications such as IoT and smart factory.



**TCS'** proprietary Industry 4.0 solutions for operations transformation are focused on achieving an autonomous or lights-out factory vision for enterprises across industries.



**Tech Mahindra's** Factory of Future (FoF) solution empowers clients with advanced technologies and enables smooth alignment across plants and the enterprise landscape.



**Wipro's** comprehensive Smart, Digital, Intelligent (SDI) framework helps enterprises to develop scalability and create value in the Industry 4.0 era.



A Hitachi Group Company

**GlobalLogic**, a Rising Star, takes an outcomes-oriented view of connected operations in clients' production landscape.



**Harman DTS** Life-ware approach blends expertise across physical, digital and industry domains with human-first design to develop solutions beyond hardware and software. Harman DTS is also a Rising Star.





“GlobalLogic offers future-proof solutions in the connected intelligent operations space.”

*Tapati Bandopadhyay*

# GlobalLogic

## Overview

GlobalLogic is a Hitachi Group company HQ in San Jose, California, U.S. and operating in 14 countries. It has over 25,000 employees across 50-plus offices. In FY21, the company had more than 500 active clients.

GlobalLogic offers Intelligent and Connected operations to Manufacturing, Automotive & Communication customers. GlobalLogic have digital accelerators which is a prebuild technology that helps them to deliver solutions in a agile way.

## Strengths

### **Delivering best-in class user experience:**

GlobalLogic offers innovative solutions and services for the connected intelligent operations space in discrete industries. It offers an integrative approach for enabling client value at the intersection of design, engineering operations and data, helping them build next-generation productions with connected hardware-software, IT-OT platforms.

**Performance-driven operations:** As a Hitachi group company, GlobalLogic can integrate the collective experience across two innovative technology and engineering service provider

landscapes. The embedded model drives strong performance and delivers combined knowledge-enabled outcomes for clients.

### **Mature and strong competency for U.S.:**

GlobalLogic has a resource pool of more than 1,200 engineers across the East and West Coasts. This is supported by about 25,000 professionals across the globe to serve clients in the automotive and other discrete industry sectors.

## Caution

Given the large and unique talent pool with integrated digital skills for engineering operations, GlobalLogic should aggressively communicate its differentiated capabilities to the market. The overall market storyboarding in terms of customers, employees and potential talent can be elevated significantly to be on par with the global top movers.





# Connected and Intelligent Operations – Process Industries

### Who Should Read This

The report is relevant for U.S.-based enterprises evaluating providers offering connected and intelligent operations for process industries such as pharma, and other regulated industries.

In this quadrant, ISG assesses the current market positioning of providers addressing the needs of process industries with services for connected and intelligent operations. Enterprises here look for new digital technologies to transform legacy plants, industrial activities and complex systems into smart operations.

Safety of people and assets remains a top priority for all enterprises. At present, all enterprises are planning on a COVID-19 exit strategy. Along with this, data and touchless service models are the disruptions manufacturers will

be embracing in the next few years. For this, enterprises are leveraging IoT, AI and machine learning, which will help them to gain the visibility they need, with technologies such as virtual reality/augmented reality (VR/AR) taking centerstage for touchless services. Providers are expected to showcase their offerings through proofs of concept and innovation centers, thus building a robust customer base of enterprises from the process industry.



**Engineering leaders** should read this report to better understand the relative strengths and weaknesses of digital engineering service providers offering connected and intelligent portfolios for process industries that can help lead the digital journeys of their engineering practices.



**Manufacturing leaders** should read this report to develop a better understanding of the current landscape of digital engineering service providers in the U.S.

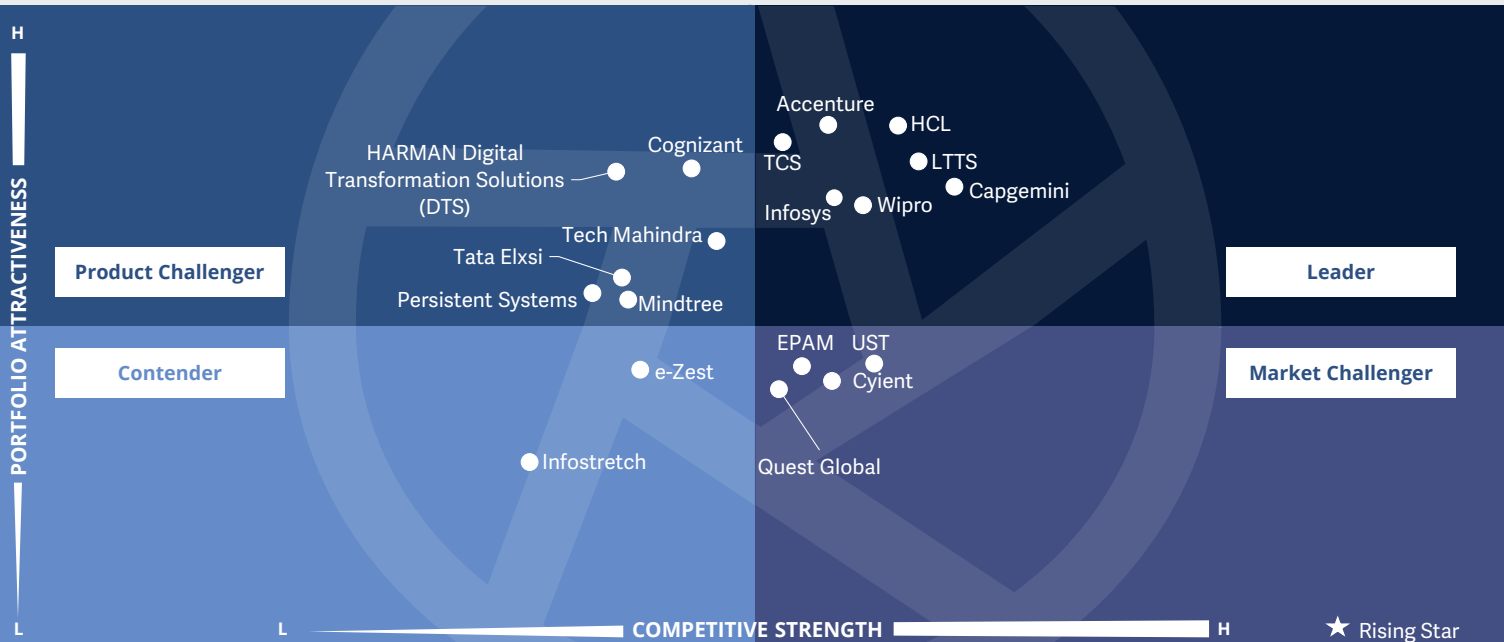


**Software development and technology leaders** should read this report to understand the positioning of digital engineering service providers and how their offerings can impact an enterprise's transformation initiatives, while identifying the benefits of embracing a digital journey in the engineering space.



**Digital Engineering Services**  
**Connected and Intelligent Operations – Process Industries**

U.S. 2022



This quadrant evaluates service providers that provide intelligent operations to industries that process materials. They contribute to the smarter operation of legacy plants, industrial operations and more complex systems through new digital technologies

*Tapati Bandopadhyay*



### Definition

This quadrant assesses service providers that offer intelligent operations to process industries. They help make legacy plants, industrial operations and more complex systems smart with new digital technologies.

### Eligibility Criteria

1. Design and implementation capabilities: smart production inflow/continuous processes, including technologies, methods, structures and processes for continuous/flow manufacturing and process industries .
2. Digital twin, digital thread, real-time AI and machine learning application cases for remote, field and hazardous operations management, real-time data engineering, industrial cybersecurity, cloud engineering.
3. Experience in IT-OT integration: plant engineering and digital supply chain experience across process industries
4. Demonstrated digital supply chain implementation and operation: Continuous, partial or completely autonomous, real-time security and quality monitoring employing AI technology stacks comprising computer vision, image and video processing, streaming analytics, deep learning applications, and intelligent automation. Asset performance monitoring, maintenance and lifecycle management ability in process industries: Includes asset performance, maintenance schedules, lifetime value optimization and predictive maintenance
5. Smart AI-augmented workforce support: workforce management-enabled digital virtual assistant technologies such as RPA, AI, and human-machine interface (HMI)



## Connected and Intelligent Operations – Process Industries

### Observations

Leaders in this quadrant have strong capabilities in transforming client operation scenarios with technical debt even in traditional process industry contexts. They are increasingly cross leveraging knowledge and experience, including digital technologies across verticals to optimize operations.

From the 30 companies assessed for this study, 19 have qualified for this quadrant with seven being Leaders.

### accenture

**Accenture's** platform engineering-based approach enables clients in process industries to leverage digital technologies such as IoT, sensors and smart monitoring systems for optimizing operational outcomes.



**Capgemini's** long-standing experience and expertise in engineering across verticals enable process industries to innovatively transform. The company is also focused on adopting green technology to ensure sustainability, which is crucial for operations in this sector.



**HCL's** horizontal solutions are easily contextualized to solve complex operation issues in process industries. They use digital technology stacks such as AI and IoT to deliver continuous monitoring and self-healing capabilities.



**Infosys' cross-vertical** knowledge base in engineering operations allow clients in process industries to leverage their domain accelerators for the rapid transformation of operations.



**LTTS** leverages its connected intelligent network to provide an end-to-end view of operations with an optimal use of digital technologies in process industries.



**TCS** offers horizontal capabilities in digital technology for transforming client operations while ensuring optimal outcomes.



**Wipro** has strong use cases of digital technology applications transforming process industry operations into intelligent and data-driven value chains with an ESG-aware approach.







# Integrated Customer/User Engagement and Experience



### Who Should Read This

The report is relevant for U.S.-based enterprises evaluating providers of assuring integrated customer/user engagement through intelligent aftermarket services.

In this quadrant, ISG assesses the current market positioning of providers offering intelligent aftermarket services that include AI-enabled customer services, virtual agents, self-service knowledge support, remote services and field support using augmented reality and virtual reality technologies, drones and real time experience management.

Enterprises are striving to transform their customer support teams and gear them toward customer success by aligning them to new metrics. This transition to customer success is primarily driven by

enhancing customer experience and leveraging digital technologies such as AI and automation that also ensure a competitive edge. Enterprises choose providers that have a global presence with a digital portfolio and a robust customer success team that will help end customers leverage the offerings, anytime and anywhere.

The adoption of digital technologies gained momentum due to the pandemic. Concurrently, the pandemic pushed the demand for end-to-end value chain modernization in aftermarket support offerings for both enterprises and providers.



**Engineering leaders** should read this report to better understand the relative strengths and weaknesses of digital engineering service providers offering integrated customer/user engagement portfolios that can help lead the digital journeys of engineering practices.



**Manufacturing leaders** should read this report to develop a better understanding of the current landscape of digital engineering service providers in the U.S.

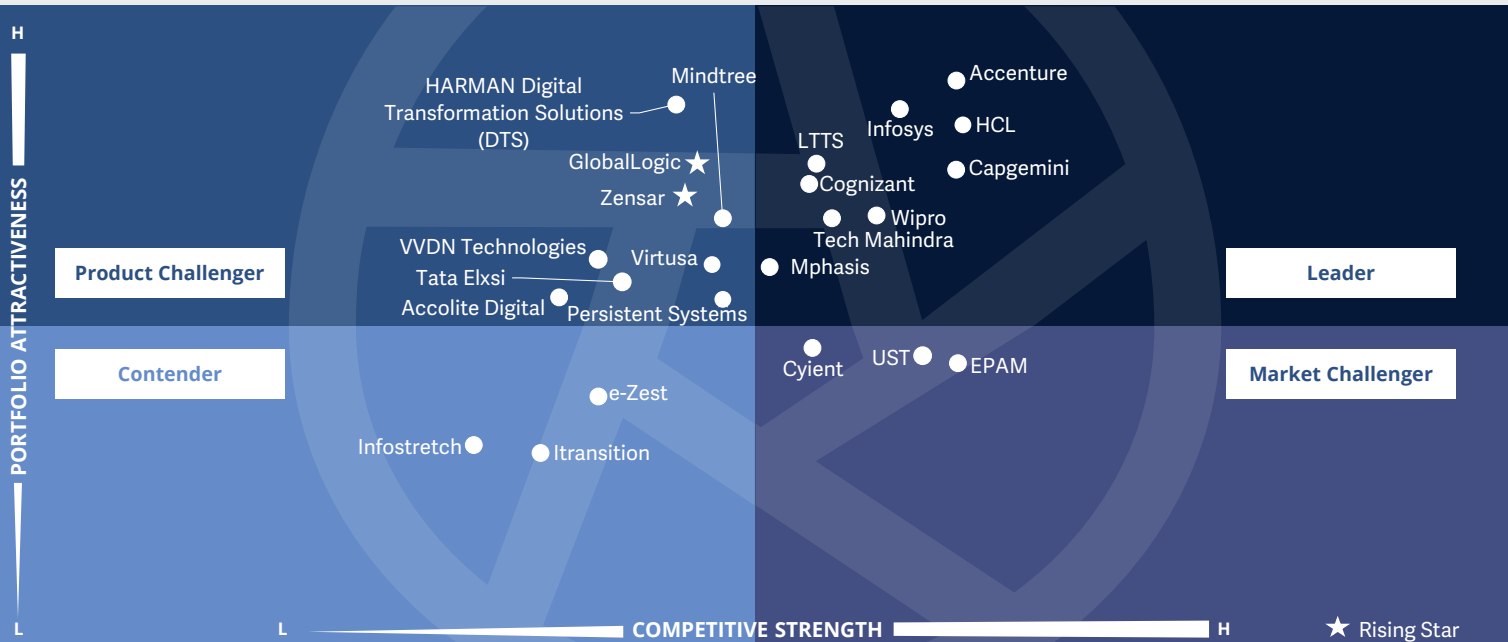


**Software development and technology leaders** should read this report to understand the positioning of digital engineering service providers and how their offerings can impact an enterprise's transformation initiatives, while identifying the benefits of embracing a digital journey in the engineering space.



**Digital Engineering Services**  
**Integrated Customer/User Engagement and Experience**

U.S. 2022



The digital platform engineering capabilities of these service providers are defined by **experience and expertise in design, development and production**. This quadrant evaluates containerization, **connected intelligence and real-time experience management** across products, services and UX.

Tapati Bandopadhyay



### Definition

This quadrant covers intelligent aftermarket services for delivering customer services and product support through digital platforms. The key capabilities for providers in this space include the ability to provision AI-enabled customer services, virtual agents, self-service knowledge support, remote services and field support by using augmented and virtual reality (AR/VR) technology, remote services through drones and real-time experience management.

### Eligibility Criteria

1. Breadth of industry coverage.
2. Predictive maintenance competency: use of data analytics, AI and machine learning in maintenance, field service management and self-healing services
3. Warranty management, lifecycle management and maintenance, repair and operations (MRO) capabilities; focus on digital experience platforms service, customer engagement, query resolution and support
4. Innovation in aftermarket services interfaces: including UI/UX design and engineering and product/ service personalization
5. New business and service models: f Remote in-field customer care and help using IoT technologies, AR/VR-powered digital avatars, and virtual customer service assistants, with real-time knowledge support and predictive actions suggestion engines. Content delivery capability: , AI-powered self-service knowledge support; for example, using natural language processing (NLP), natural language understanding (NLU) and natural language generation (NLG), conversational AI and virtual agent support
6. Leverage customer and market feedback: value-added utilization of customer, field and market feedback regarding products, services, experiences and performances in the field



## Integrated Customer/User Engagement and Experience

### Observations

After-market services, customer support and field services have all been transformed with the development of platform-led integrated customer experience design and delivery offerings. In addition, composable service architecture, powered by digital technologies such as IoT, drones, AR/VR and mixed reality, is used in various applications such as remote field support by leveraging Microsoft HoloLens and Google Glass, among other technologies.

Engineering service providers are gaining prowess in redefining integrated digital customer experience services for complex client environments. The cross-platform view of client value propositions in digital businesses enables digital customer service and support functions. Here are the key trends that we have observed:

- Service providers are developing tools and frameworks, making them a rapidly scalable partner for clients to pivot their businesses into platforms that can drive and deliver entirely new digital customer experiences and field services.
- Digital platforms are offering predictive analytics and automation with advanced support for clients to transform the end customer experience in a digital and agile manner for driving net new business outcomes.
- Most providers are driving the experience-led transformations for digital journeys through the efficient use of incorporated digital technology stacks.

From the 42 companies assessed for this study, 24 have qualified for this quadrant with nine being Leaders and two as Rising Stars.

### accenture

**Accenture** is a thought leader and execution pioneer in the platform engineering services space. The company leverages this position for redefining its integrated digital customer experience services for complex client service environments.

### Capgemini

**Capgemini** provides a cross-platform, cross-vertical and end-to-end view of client value propositions in digital businesses to enable digital customer service and support functions.

### cognizant

**Cognizant** offers platform engineering services space through an experience-focused, collaborative technology ecosystem that helps clients transform their end-customers' support experiences.

### HCL

**HCL** leverages its strong bundle of intellectual property and frameworks to rapidly transform client businesses into platforms that can drive and deliver new digital customer experience and field services.

### Infosys

**Infosys'** digital platform engineering enables clients to transform their end-customers' experience in a digital and agile manner while driving net new business outcomes.



**LTS** offers strongly differentiated intellectual property and solution bundles for platformizing client businesses into dynamic digital avatars. It delivers unique experiences and outcomes for enterprises and their end customers.



## Integrated Customer/User Engagement and Experience



**Mphasis** delivers an experience-led transformation for client businesses through efficient usage of integrated digital technology stacks and value chains.



**Tech Mahindra** leads with its integrated digital experience management capabilities in terms of quality of domain talent and tech resources. The integrated CX/UX offerings stems from its deep experience and expertise in digital tech solutions.



**GlobalLogic**, a Rising Star, takes a transformational business-driven approach toward digitally transforming its clients' end-customer experiences through innovative digital technology use cases.



**Zensar**, also a Rising Star, has a strategic and holistic view of customer experience enablement for clients through a delivery approach backed by experience-focused design and support.





“GlobalLogic offers a transformational approach to transform clients’ end-customer experiences.”

*Tapati Bandopadhyay*

# GlobalLogic

## Overview

GlobalLogic, a Hitachi Group company HQ in San Jose, California, U.S. operates in 14 countries. It has over 25,000 employees across 50-plus offices. In FY21, the company had more than 500 active clients. It helps businesses create engaging user experiences based on technology innovation.

## Strengths

**Digital transformation services for engineering clients:** GlobalLogic follows a data-driven approach, combining market research and strategy and management consulting. It enables digital value engineering with a focus on delivering transformative experiences.

**Digital experience transformation services:** The combination of design thinking, “Design + Proto” engineering, production and scale engineering, maintenance and upgrade engineering offers a world-class customer experience. This design-for-experience led engineering approach, along with

an agile delivery mode, help clients leverage the best of consulting and execution skills.

**Comprehensive focus on experience and value:** The combined skillsets and solutions across GlobalLogic and Lumada (the Hitachi Vantara umbrella ecosystem) enable clients to execute and operate digital operations and aftermarket services optimally. This capability is supported by the RunOps infrastructure and platform infrastructure managed services.

## Caution

GlobalLogic offers world-leading resources, even at the top levels of engineering practices. This unique position should be better leveraged to create a future-ready talent pool with innovation talent acquisition, retention and reward strategies, along with strong employer branding efforts, to scale exponentially in the U.S.





# Platforms and Applications Services

### Who Should Read This

The report is relevant for U.S.-based enterprises evaluating providers offering platform and application services to design and deliver platform engineering competencies.

In this quadrant, ISG assesses the current market positioning of providers with proficiencies in business and technical design, capabilities in building new experiences, prowess to leverage digital ecosystems and orchestration platforms and the ability to use microservice-based architectures.

Platformization has become an integral part of digital product design and development irrespective of the industry vertical. Everything becoming software dependent requires softwarization of product features and product

functionalities. Differentiation by software functions is a refreshing approach to product development alongside the adoption of advanced technologies and involvement of the ecosystem in which the product would thrive.

Service providers should invest in development and testing environments from on-premises to the cloud, distributed product engineering, and mature DevOps and agile practices. Providers should consider accelerating product digitalization, including software-defined products, defining new architectures for intelligent edge/smart devices with better connectivity enablement and enrichment.



**Engineering leaders** should read this report to better understand the relative strengths and weaknesses of digital engineering service providers offering platform and application services portfolios that can help lead the digital journeys of engineering practices.



**Manufacturing leaders** should read this report to develop a better understanding of the current landscape of digital engineering service providers in the U.S.



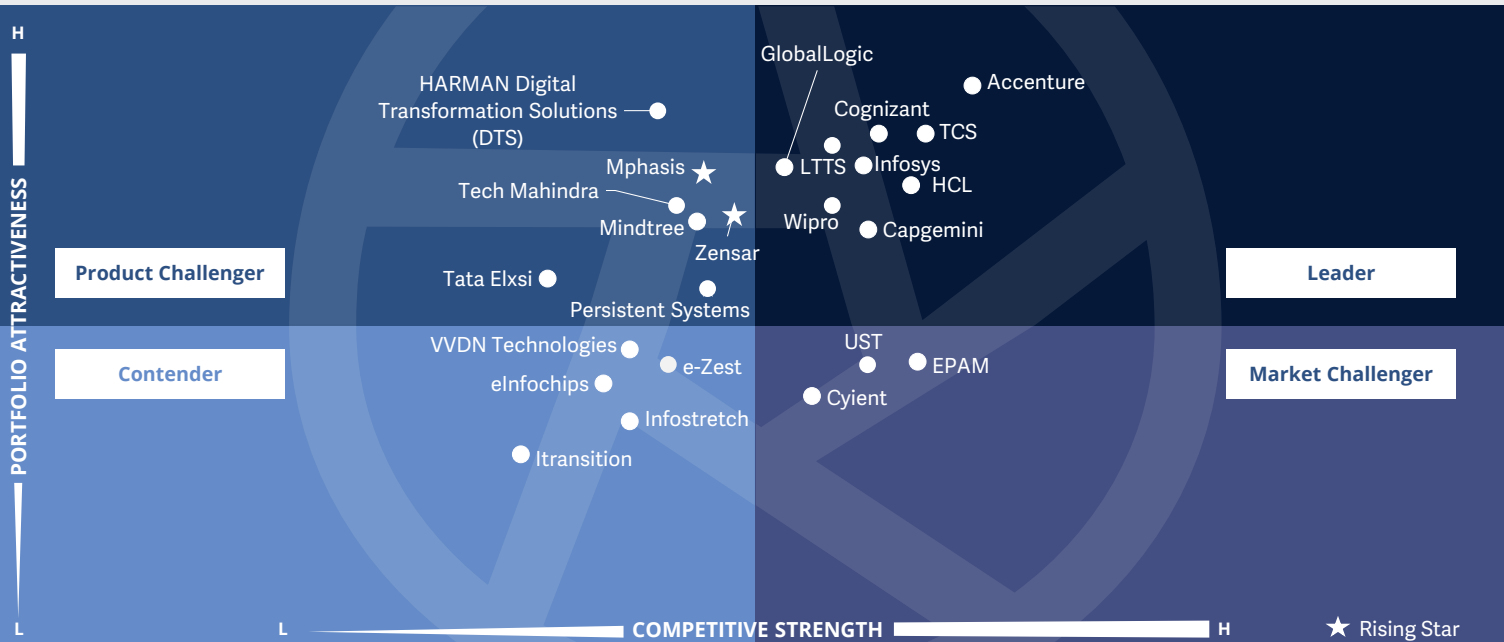
**Software development and technology leaders** should read this report to understand the positioning of digital engineering service providers and how their offerings can impact an enterprise's transformation initiatives, while identifying the benefits of embracing a digital journey in the engineering space.





Digital Engineering Services  
Platforms and Applications Services

U.S. 2022



Expertise in technical design is essential for **building digital ecosystems, orchestration platforms** and microservice-based architectures. This quadrant assesses providers' competencies in **design and delivery capabilities** across digital platform engineering.

Tapati Bandopadhyay



### Definition

This quadrant covers a service provider's ability to design and deliver digital platform engineering competencies. The key capabilities include proficiencies in business and technical design, building new experiences, and the ability to leverage digital ecosystems, orchestration platforms and microservice-based architectures. This analysis also covers containerization, connected intelligence and experience management across products, services and user experience (UX) in real time.

### Eligibility Criteria

1. Digital ecosystem orchestration platform capabilities: ability to design, build, deliver, support and leverage digital ecosystem orchestration platforms to facilitate commerce and monetize products and services.
2. Technology platforms engineering: building and operating a common platform as a product for technology teams to reduce time to market and complexity by providing self-service deployments. Capabilities and proven experience: utilizing integrated digital technology platforms of connected systems, things and people, and de-link hardware and software
3. Core platform strategy and engineering capabilities: shift from a product to a platform mentality by architecting and developing an API strategy for a scalable and future-ready platform
4. Cloud-native design skills: Cloud-based digital platform ecosystem offerings and services at speed, building and offering flexible new experiences by combining next-generation networks, 5G and edge analytics, and federated AI on real-time streaming data. Augmented, virtual and mixed reality, plus real and virtual application capabilities from integrated digital cloud platforms. Engineering ADM competency: application development and maintenance (ADM) ability with a focus on smart, connected product, platform and service design, and cloud-native, digital-native design
5. Product/service configurability and personalization: apply behavioral intelligence and predictive analytics on real-time/streaming data from users and smart connected devices
6. Design, build, deliver, run and augment reusable functions/modules in digital platforms



### Observations

Service providers and clients are simultaneously developing the platform as they understand the value of monetizing products and services. In addition to facilitating transactions, the platform economy has opened new revenue streams for businesses and help orchestrate better customer experiences for individuals and businesses. Providers that offer platform engineering services assist enterprises in obtaining significant ROI in developing, operating and maintaining scalable platforms.

Containerization has provided organizations with new opportunities and business challenges. As a result, they are adopting collaborative digitized engineering processes to accelerate platform development, secure the digital and physical worlds, and automate the process across the product development lifecycle and operations as part of the new

normal. Here are three key areas where providers are experiencing the change and shifting focus

- They are creating joint strategies of co-working and co-building solutions by leveraging the industry contextual knowledge, which is increasing as the collaboration of domain knowledge and technology expertise results in new industry aligned solutions.
- Providers are taking ownership to offer support across all stages of the transformation journey, from strategizing, building, migrating and deploying to sustaining and supporting operations.
- Digital engineering service providers are securing leadership as advisory members and in manufacturing and engineering organizations, offering guidance on platform engineering, design, and simulation.

The Leaders and Rising Stars in the platform engineering and application services space have enabled completely new value propositions that can transform even legacy businesses into data and intelligence-enabled composable service architecture and operating models.

From the 41 companies assessed for this study, 24 have qualified for this quadrant with nine being Leaders and one as a Rising Star.

### accenture

**Accenture** has defined the platform engineering services space with digital value enablement across hardware, software, data and services. At the intersection points of these modular technology stacks, the design and imagination agility of the talent pool pivots clients into the digital age.

### Capgemini

**Capgemini** leverages its cross-vertical and region experience, including its knowledge, base to help clients platformize their businesses. The recent focus on ESG is one of its key elements that demonstrate service maturity.

### cognizant

**Cognizant** offers a rapid and outcome-assured path to platformization for clients' digital and hybrid businesses as well as operating models. The focus is on delivering speed and quality across the transformation journey.



## Platforms and Applications Services



**GlobalLogic's** digital engineering services enable clients to accelerate their business transformation predictably and holistically.



**HCL's** long-term engineering strengths and intellectual property-led innovations help clients platformize their digital and hybrid businesses in a seamless manner. The company leverages reusable knowledge assets and digital accelerators to enable their transformation.



**Infosys** leverages its talent quality, experience and knowledge along with tools and accelerators to provide platformization opportunities to clients. Platform engineering requires a large-scale infusion of domain consulting skills, an area where Infosys has strong expertise.



**L7TS'** platform engineering services are focused on enabling disruptive business outcomes for clients across the varied digital maturity spectrum. The company also offers a long-term lifecycle management approach towards digital business platforms and assets for clients.



**TCS** leverages its strong and deep technology know-how to enable rapid platformization of clients' businesses and value chains. The rapid implementations of platform modules also ensure tried and tested results and efficiencies, while keeping the business governance aspects at the core.



**Wipro** offers a comprehensive view across platform assets, from technology solutions and domain use case standpoints. The end-to-end lifecycle-based platform asset management approach ensures a sustainable value stream from clients investments in the platform ecosystem.



Rising Star ZenSar's all-out approach to digitalization beyond just digitization (including the application of technology stacks) helps clients transform rapidly. While modularizing client businesses effectively to deliver digital value propositions, the approach ensures governance and data-driven transparency.





“GlobalLogic’s digital engineering services help accelerate digital business transformation.”

*Tapati Bandopadhyay*

# GlobalLogic

## Overview

GlobalLogic, a Hitachi Group company HQ in San Jose, California, U.S. operates in 14 countries. It has over 25,000 employees across 50-plus offices. In FY21, the company had more than 500 active clients. GlobalLogic helps existing clients adopt platform components and implement solutions for clients of all sizes.

## Strengths

### **Agile platforms for building composable service architecture:**

GlobalLogic’s integrative approach to digital engineering services is effective for clients in transforming their traditional and net-new digital business models into agile platforms with composable service architecture on top of connected data-driven infrastructure layers.

### **Investment and focus on research:**

The client’s digital business value streams intersects at brand value and identity, business strategy, services and product designs. These are supported by technology innovation and use

cases with a strong focus on R&D. GlobalLogic supports this entire value stream for clients’ digital business platforms.

**Omnichannel integration across vital technologies:** GlobalLogic’s engineering teams support digital platforms and interfaces, touchpoints that augment core products, and allow a variety of dynamic interaction models. These interfaces are integrative across multiple technology channels and across key stakeholder personas such as suppliers, partners and customers that are embedded in the digital value ecosystem.

## Caution

GlobalLogic has developed and delivered pioneering thought leadership and artefacts in the digital platform engineering services space. The company has scope to strengthen this position effectively by practicing impact storytelling and driving disruptive market communications.





# Appendix

The ISG Provider Lens 2022 – Digital Engineering Services analyzes the relevant software vendors/service providers in the U.S. market, based on a multi-phased research and analysis process, and positions these providers based on the ISG Research methodology.

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The research and analysis presented in this report includes research from the ISG Provider Lens program, ongoing ISG Research programs, interviews with ISG advisors, briefings with services providers and analysis of publicly available market information from multiple sources. The data collected for this report represents information that ISG believes to be current as of May 2022 for providers who actively participated as well as for providers who did not. ISG recognizes that many mergers and acquisitions have taken place since that time, but those changes are not reflected in this report.

All revenue references are in U.S. dollars (\$US) unless noted.

The study was divided into the following steps:

1. Definition of Digital Engineering Services market
2. Use of questionnaire-based surveys of service providers/vendor across all trend topics
3. Interactive discussions with service providers/vendors on capabilities & use cases
4. Leverage ISG's internal databases & advisor knowledge & experience (wherever applicable)
5. Use of Star of Excellence CX-Data
6. Detailed analysis & evaluation of services & service documentation based on the facts & figures received from providers & other sources.
7. Use of the following key evaluation criteria:
  - \* Strategy & vision
  - \* Tech Innovation
  - \* Brand awareness and presence in the market
  - \* Sales and partner landscape
  - \* Breadth and depth of portfolio of services offered
  - \* CX and Recommendation



## Author & Editor Biographies

*Lead analyst*



**Lead analyst – U.S.**  
**Tapati Bandopadhyay**

Dr. Tapati Bandopadhyay has been an inventor, builder, practitioner and researcher in AI, intelligent automation and related domains, for 25+ years. She has been a global practice leader and executive-level advisor & consultant, in AI-automation-cloud and services management, covering MLOps, AIOps, CloudOps, DataOps, ModelOps &

DevOps metrics-driven practices and data and AI story-building and story-telling practices and tools. As an ISG Lead Analyst on AWS and in AI-ML, consulting & managed services, she is responsible for defining and leading the ISG Provider Lens branded research projects, for the US market.

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**Srinivasan PN**  
**Senior Research Analyst**

Srinivasan PN is a senior research analyst at ISG and is responsible for supporting and co-authoring ISG Provider Lens™ studies on AWS & Google Ecosystem, Digital Engineering, Manufacturing and Mainframe. His area of expertise lies in the space of engineering services and digital transformation. Srinivasan comes with 8 years of experience in the technology

research industry and in his prior role, he carried out research delivery for both primary and secondary research capabilities. Srinivasan also authors enterprise context reports and global summary reports for each of his expertise areas. Along with this, he supports the advisors with his research skills and writes papers about latest market developments in the industry.







*IPL Product Owner*

**Jan Erik Aase**  
**Partner and Global Head –**  
**ISG Provider Lens**

Mr. Aase brings extensive experience in the implementation and research of service integration and management of both IT and business processes. With over 35 years of experience, he is highly skilled at analyzing vendor governance trends and methodologies, identifying inefficiencies in current processes, and advising the industry. Jan Erik has experience on all four

sides of the sourcing and vendor governance lifecycle - as a client, an industry analyst, a service provider and an advisor. Now as a research director, principal analyst and global head of ISG Provider Lens™, he is very well positioned to assess and report on the state of the industry and make recommendations for both enterprises and service provider clients.



### \*ISG Provider Lens™

The ISG Provider Lens™ Quadrant research series is the only service provider evaluation of its kind to combine empirical, data-driven research and market analysis with the real-world experience and observations of ISG's global advisory team. Enterprises will find a wealth of detailed data and market analysis to help guide their selection of appropriate sourcing partners, while ISG advisors use the reports to validate their own market knowledge and make recommendations to ISG's enterprise clients. The research currently covers providers offering their services across multiple geographies globally.

For more information about ISG Provider Lens research, please visit this [webpage](#).

### \*ISG Research™

ISG Research™ provides subscription research, advisory consulting and executive event services focused on market trends and disruptive technologies driving change in business computing. ISG Research delivers guidance that helps businesses accelerate growth and create more value.

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### \*ISG

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Founded in 2006, and based in Stamford, Conn., ISG employs more than 1,300 digital-ready professionals operating in more than 20 countries—a global team known for its innovative thinking, market influence, deep industry and technology expertise, and world-class research and analytical capabilities based on the industry's most comprehensive marketplace data. For more information, visit [www.isg-one.com](http://www.isg-one.com).



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**REPORT: DIGITAL ENGINEERING SERVICES**