IDC MarketScape

IDC MarketScape: Worldwide IT and Engineering Services for Software-Defined Vehicles 2025 Vendor Assessment

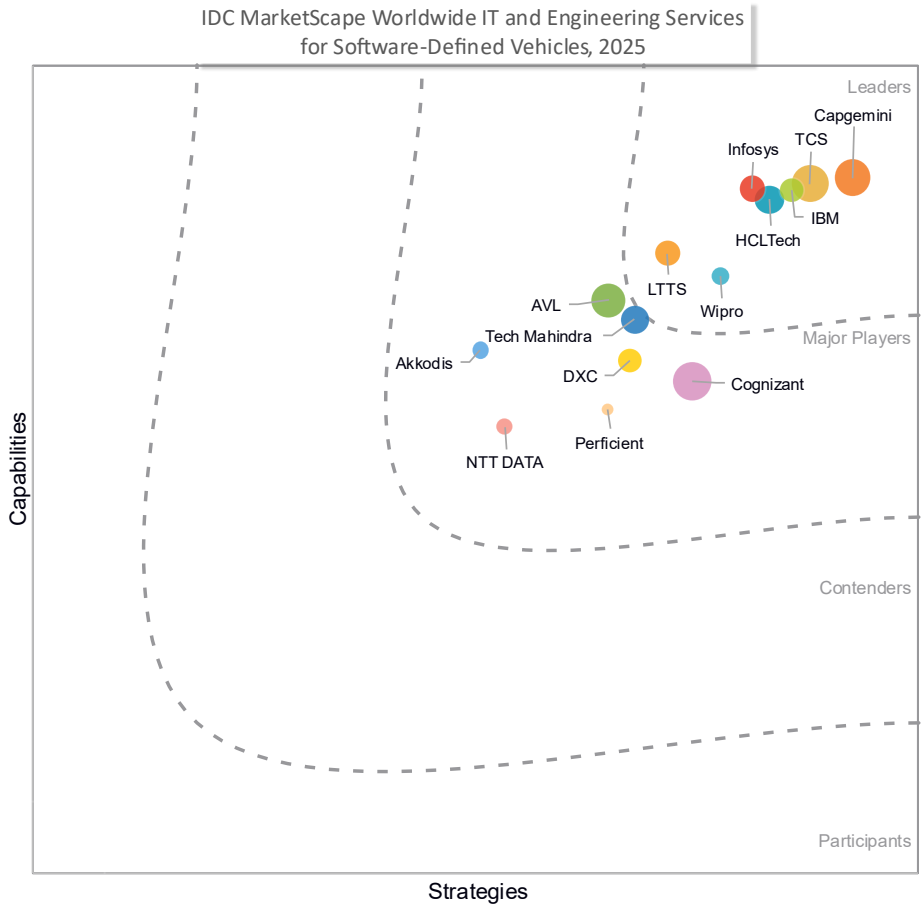
Abhishek Mukherjee Remi Letemple

THIS MARKETSCAPE EXCERPT FEATURES INFOSYS AS A LEADER

IDC MARKETSCAPE FIGURE

FIGURE 1

IDC MarketScape Worldwide IT and Engineering Services for Software-Defined Vehicles Vendor Assessment



Source: IDC, 2025

September 2025, IDC #US51813124e

Please see the Appendix for detailed methodology, market definition, and scoring criteria.

IN THIS EXCERPT

The content for this excerpt was taken directly from IDC MarketScape: Worldwide IT and Engineering Services for Software-Defined Vehicles 2025 Vendor Assessment (Doc # US51813124).

IDC OPINION

The software-defined vehicle (SDV) is the recent advancement in vehicle architecture primarily driven by software to manage operations, add functionality, remotely update, and enable new features with over-the-air (OTA) rollouts. In both gas-powered and electric power trains, the vehicle architecture is moving away from distributed control with multiple electronic control units (ECUs) to a more centralized computing approach with few systems on a chip (SoCs) in which many features, such as assisted driving, connected infotainment, driver monitoring systems, intelligent energy management, and other automotive embedded systems, can be controlled, managed, updated, and maintained centrally over the life cycle of the vehicle.

One of the main advantages of software-defined vehicles is their ability to enable and manage innovative CASE (connected, autonomous, shared, and electric) mobility features — such as autonomous driving (AD)/self-driving and connected services — which not only improve safety but also offer opportunities for new subscription-based offerings. Unlike traditional hardware–defined vehicle architecture, SDVs can be future ready to introduce and manage new features leveraging over-the-air updates. In addition, the traditional approach toward vehicle maintenance (preventive and reactive) and recalls due to regulatory compliance can be completely transformed with remote diagnostics, proactive maintenance, and OTA updates, saving auto companies and their customers significant costs, time, and effort.

An increasing number of automakers are now offering vehicles equipped with advanced hardware — such as sensors, computing units, storage, and connectivity — designed to support the deployment, management, and maintenance of emerging software-defined infotainment and functional features, including autonomous driving and embedded systems. However, the rollout of these new software-driven capabilities introduces heightened risks, particularly in terms of functional safety and cybersecurity. In addition, the transition to SDVs is reshaping the traditional automotive value chain, as established suppliers are being replaced by new technology vendors with expertise in sensing, electronics, connectivity, and software solutions.

Role of IT and Engineering Service Providers in the SDV Value Chain

The auto industry value chain is transitioning from the traditional pyramidal form to a flat structure. IT and engineering services providers (SPs) are working with original equipment manufacturers (OEMs) and tiered suppliers to develop, validate, supply, and integrate software-defined, connected, and autonomous features onto the vehicle platforms. These service providers bring strategy/consulting, design, engineering, development, deployment, testing and validation, systems integration, and support and management services, allowing SDVs to ensure seamless interfacing between the modernized systems and legacy and to migrate these legacy systems to modernized infrastructure. Rather than relying on exclusive arrangements, automakers are increasingly forming collaborative partnerships with multiple IT and engineering services providers to address specific needs. This flexible approach encourages project-based and platform-based collaborations across the ecosystem. These services providers also gain from these relationships, as they foster long-term partnerships with OEMs and share responsibilities for both product development and cost management.

Key Developments in Engineering Services for Software-Defined Vehicles

Shifting from Traditional to Agile and Secure Software Development

Auto OEMs have historically focused on manufacturing hardware and relied on tier 1 suppliers for sourcing, development, and integration of software-defined features. Most of the new product developments followed the waterfall approach. The growing proportion of software in vehicle engineering and development is now giving rise to agile development frameworks with integration of security across each level.

Development and security must merge into a DevSecOps approach, introducing risk and threat analysis at every stage, accelerating delivery, and strengthening security. This approach increases automotive manufacturers and tier 1s' security posture while streamlining the path to production and accelerating the delivery of modern automotive applications. In their automotive and SDV offerings, IT and engineering services partners are emphasizing agile deployments with a keen focus on threat mitigation and cybersecurity frameworks to create assurance for secured engineering and deployment of next-generation software-defined vehicles.

Understanding Challenge Unique to the Automotive Market and Brands

While CASE features are common in luxury vehicles, OEMs aim to bring them to mass-market models, which are highly price sensitive and face intense competition. This results in a significant reduction in margins and requires the hardware, software platforms, cloud hyperscalers, and engineering and integration service providers to support the OEMs effectively in their SDV journey.

Both tech vendors and IT and engineering service providers must understand factors associated with risk to market, time to market, and traditional and emerging regulations, such as autonomous vehicle (AV) operation, data privacy, and sovereignty laws in both global and regional markets. IT and engineering service providers are building proprietary platform solutions that can facilitate faster engineering, development, and testing and validation to accelerate time to market. These toolkit/accelerator solutions are complemented with the domain-specific nuances and a strategy consulting approach that can allow the technology buyers to address the regional regulations more effectively.

Increasing Focus on Partnerships and Standardization

The automotive industry has grown significantly with the increase of software platforms, embedded software, cloud, AI, and so forth, becoming more prevalent parts of vehicle development and engineering. Hence a cohesive partnership with the semiconductor and embedded systems companies, cloud hyperscalers, and specialized software suppliers is imperative for designing, engineering, and developing software-defined vehicles. While developing their solutions for software-defined vehicles (SDVs), engineering service providers are integrating technology vendors into the ecosystem, enabling automakers to focus seamlessly on SDV engineering and new product development. Not only the technology vendor partnerships but participation in consortia (such as AUTOSAR, SOAFEE, SDV Alliance, COVESA, and Eclipse) along with the customers and technology vendor partners are also becoming important to showcase their innovation and competitive edge. These open groups are also reducing the level of fragmentation and address ever-increasing complexities by bringing open collaborative frameworks. Engineering service providers and technology vendors along with auto manufacturers and tier 1s are actively contributing to these consortia.

Leveraging GenAI for SDV Development

Auto OEMs and technology vendors can leverage generative AI (GenAI)-powered tools on public cloud platforms to overcome key obstacles in cloud-native automotive software development. As efforts and collaborations to create fully software-defined vehicle architectures accelerate, GenAI's most immediate benefit is its ability to rapidly

upskill and enable traditional automotive engineers — especially those without extensive coding or programming experience — by providing them with advanced AI-driven tools and models.

A GenAI-enabled text-to-code foundation model can boost productivity and faster time to market by improving developer velocity with code generation, completion, refactoring, quality, and testing and validation. It also can automate regulatory compliance checks and virtual validation, speeding up software feature development, especially for advanced driver assistance system (ADAS) and autonomous vehicles.

IDC MARKETSCAPE VENDOR INCLUSION CRITERIA

Following lists the inclusion criteria considered in handpicking IT and engineering services vendors for this vendor assessment:

- The services vendor must operate in at least two of the six types of professional services defined by IDC (see Market Definition) as the combination of project-oriented services such as business and IT consulting, systems integration, custom application development, and other managed services in automotive software development, testing, simulation, and life-cycle management.
- The supplier generates at least US$1 billion of annual IT professional services revenue globally with over US$100 million in IT professional services revenue in the automotive vertical.
- The vendor must be operating in at least two regions out of North America, EMEA, Asia/Pacific (including Japan), and Latin America.
- The supplier must have at least one major auto company as a client with annual revenue of over US$10 billion in 2023.

ADVICE FOR TECHNOLOGY BUYERS

- **Implement a robust vendor selection process.** As you embark upon your IT and engineering services toward software-defined vehicles, use this IDC MarketScape as a tool not only to shortlist vendors but also to evaluate and experience their capabilities across automotive engineering and software-defined vehicles services for your specific needs. Selecting the right partner for your software-defined vehicle transformation requires more than just technical capability, it demands a clear, forward-looking vision for the future of mobility. It is essential to assess not only their track record with similar automotive clients but also how they plan to evolve their offerings and delivery models. A partner with a robust innovation road map and a deep understanding of emerging

mobility trends will be critical to ensuring long-term success and adaptability in a rapidly shifting regulatory and geopolitical landscape.

- **Adopt a business-led strategic partnership approach.** It is imperative to have the conversation around "what is your business problem?" at the very beginning of the transformation journey from traditional to software-defined vehicle transformation journey. Discuss with your shortlisted IT and engineering service providers regarding your domain and functional knowledge and how the SDV service road map and deployment will impact your business metrics.

  It is also imperative for you to ask for ROI estimation and evaluate how the service provider is tracking it across the life cycle of the engagement. Check whether the partner is willing to put its skin in the game by committing to specific metrics. Ensure you compensate the partner accordingly for taking on this risk. If the partner fails to deliver upon these commitments, ensure there are appropriate consequences and adjustments in compensation to reflect unmet targets.
- **Evaluate technology partnerships and open group participation.** Successful development and deployment of SDV is dependent on technology partnerships across cloud hyperscalers, vehicle operating systems (VOSs) providers, automotive embedded solutions, cybersecurity solution vendors, and so forth. IT and engineering service providers with comprehensive partnerships across the end-to-end automotive technology stack are important consideration in the selection process.

  While evaluating it is also important to inspect how the service providers along with the technology partners are participating and contributing to the open groups (existing and emerging) for source code, architectures, and frameworks to improve standardization and reduce fragmentation. These contributions enable you to get the comprehensive understanding of the SDV service partner's innovation capabilities and how that can complement your SDV road map.
- **Focus on the talent ecosystem.** The IT and engineering service provider's talent ecosystem plays a crucial role in successful delivery of SDV solutions and services across its life cycle. While service providers have talents across software product/platform engineering and embedded software engineering, it is important to introspect how they are leveraging them in delivering solutions across automotive engineering especially from the software-defined vehicles solution deliveries. This includes evaluating their ability to deliver SDV programs with the right mix of talent — strategically located in key automotive hubs — to ensure proximity to OEMs and alignment with regional market needs. It is important for you to evaluate the service providers that not only excel in product engineering and development talents but also offer strong expertise in

horizontal areas such as testing, cybersecurity, and connectivity, along with next-generation automotive domain knowledge.

- **Evaluate proprietary assets/frameworks and the delivery ecosystem.** For your software-defined vehicles engineering solution and services engagements, it is crucial to inspect what proprietary tools, methodologies, and frameworks your service partner offers and how they complement the outcome. Also, you must also evaluate onshore/nearshore/offshore delivery capabilities and research and development (R&D) labs/innovation centers of your service partner as appropriate for your deployment.

VENDOR SUMMARY PROFILE

This section briefly explains IDC's key observations resulting in Infosys' position in the IDC MarketScape. The description here provides a summary of the vendor's strengths and challenges.

Infosys

After a thorough evaluation of Infosys' strategies and capabilities, the company is recognized in the Leaders category in this 2025 IDC MarketScape for worldwide IT and engineering services for software-defined vehicles.

Headquartered in Bangalore, Karnataka, India, Infosys is a global IT and engineering service provider with an end-to-end automotive services practice. It has a comprehensive suite of services on software-defined vehicles from consulting, design, and engineering to deployment, integration, and management. Its automotive engineering and software-defined vehicle services practice is part of its broader engineering and IoT services practice and is currently complemented by two major acquisitions by the service provider in 2024, which are Germany-based automotive engineering service provider in-tech and India-based semiconductor and embedded systems design and development service provider InSemi.

SDV services offered by Infosys can be classified into high-performance computing and interoperability services, vehicle operating system (OS) services (RTOS or Linux based, management of software components, communication, and security); software architecture design and engineering, OTA update management, and testing (functional safety, SOTIF, cybersecurity, etc. supported by HIL, PIL, SIL, and MIL); and DevSecOps. The service provider also provides custom OTA platforms, digital life-cycle management, and virtual ECU development, ensuring vehicles remain secure, up to date, and compliant. Its expertise across cloud, IoT, digital twins/threads, AI/ML, and generative AI further complements its automotive and SDV capabilities along with its capabilities across AUTOSAR and model-based systems engineering. The company's

offerings road map includes expanding virtual vehicle models and autonomous driving solutions (ADAS), strengthening cloud computing integration, virtual testing and validation, and cybersecurity. Apart from that, incorporation of AI/ML and GenAI in internal and customer-facing SDV workflow is a key area of investment for Infosys.

Strategically, Infosys is focused on building proprietary platforms/accelerators — the service provider has built more than 50 accelerators facilitated by its investments in setting up R&D labs across offshore, nearshore, and onsite locations. Infosys Autonomous platform, DevSecOps platform, and so forth are some of those that the service provider utilizes to facilitate faster time to market for its customers. Building and skilling domain and technical talent are also key focus areas for Infosys — nearly 10% of the overall IoT talent pool focused on SDV IT professional services and approximately 15% of in-tech GmbH's engineers are involved in software development for software-defined vehicles.

Growing and strengthening its partnership ecosystem is also a pillar of its SDV strategy. Infosys has partnerships across cloud hyperscalers, AI platform vendors, domain-centric solutions vendors, semiconductor/embedded systems solutions providers, and universities/academia, and it wants to nurture these engagements to bring more innovative solutions to the market. From the engagement perspective, Infosys is also bringing more flexibility in its pricing and contract models.

Strengths

Being a full-service IT and engineering services enterprise, Infosys has brought the required parts to develop comprehensive software-defined vehicle and next-generation automotive engineering services offerings to auto OEMs and tier 1 vendors. The service provider is bringing its strength across onboard and offboard capabilities, and its acquisitions of in-tech and InSemi in 2024 are expected to further bolster its in-house capabilities. in-tech's footprint across Germany, Spain, Romania, Austria, Czech Republic, the United Kingdom, China, and India further enhances Infosys' presence in key markets.

Customers appreciate the in-vehicle infotainment, ADAS, and off-the-shelf solutions along with deep domain expertise — these are also complemented by Infosys' vast R&D ecosystem and proprietary platforms.

The acquisition of in-tech is expected to bolster its SDV systems integration and validation capabilities and InSemi to strengthen its system on a chip and embedded systems/software offerings along with an experienced talent pool that is scarce.

Challenges

Despite building a comprehensive offering around SDV to service automotive customers, it is imperative for Infosys to bridge the gaps in its portfolio — system-on-a-chip–based EV power train solutions, leveraging GenAI-enabled copilots, and open source Linux/Android OS development for OEMs are some of the key areas to be part of its product refinement strategy. While the in-tech and InSemi acquisitions are expected to augment its offerings, it is imperative for the service provider to keep and nurture the talent and competence that it has obtained.

Customers also suggest that the best practices of other business units should be brought into their automotive engineering and SDV practice to streamline the deliveries.

APPENDIX

Reading an IDC MarketScape Graph

For the purposes of this analysis, IDC divided potential key measures for success into two primary categories: capabilities and strategies.

Positioning on the y-axis reflects the vendor's current capabilities and menu of services and how well aligned the vendor is to customer needs. The capabilities category focuses on the capabilities of the company and product today, here and now. Under this category, IDC analysts will look at how well a vendor is building/delivering capabilities that enable it to execute its chosen strategy in the market.

Positioning on the x-axis, or strategies axis, indicates how well the vendor's future strategy aligns with what customers will require in three to five years. The strategies category focuses on high-level decisions and underlying assumptions about offerings, customer segments, and business and go-to-market plans for the next three to five years.

The size of the individual vendor markers in the IDC MarketScape represents the market share of each individual vendor within the specific market segment being assessed.

Although the 14 vendors that IDC evaluated represent the majority share of spending for software-defined vehicles engineering services worldwide, there are other vendors participating in this market worth considering based on your needs. This IDC MarketScape evaluated the following vendors: Akkodis, AVL, Capgemini, Cognizant, DXC, HCLTech, IBM, Infosys, LTTS, NTT DATA, Perficient, TCS, Tech Mahindra, and Wipro.

IDC MarketScape Methodology

IDC MarketScape criteria selection, weightings, and vendor scores represent well-researched IDC judgment about the market and specific vendors. IDC analysts tailor the range of standard characteristics by which vendors are measured through structured discussions, surveys, and interviews with market leaders, participants, and end users. Market weightings are based on user interviews, buyer surveys, and the input of IDC experts in each market. IDC analysts base individual vendor scores, and ultimately vendor positions on the IDC MarketScape, on detailed surveys and interviews with the vendors, publicly available information, and end-user experiences in an effort to provide an accurate and consistent assessment of each vendor's characteristics, behavior, and capability.

Market Definition

The software-defined vehicle represents the evolution in automotive design and architecture where the software oversees core functions, enables new functionalities, and supports remote updates through over-the-air (OTA) rollout. In both internal combustion engines and electric vehicles, as manufacturers migrate from a distributed network of electronic control units (ECUs) handling individual functions to a more centralized computing approach powered by a few system on a chip (SoC). This enables various features such as assisted driving, cruise control, connected infotainment, driver monitoring, intelligent energy management, and other automotive embedded systems to be maintained, managed, and upgraded seamlessly throughout the vehicle's life cycle.

LEARN MORE

Related Research

- *IDC MarketScape: Worldwide Industrial IoT Engineering and Managed Services 2025 Vendor Assessment* (IDC #US53235725, March 2025)
- *IDC MarketScape: Worldwide Industrial IoT Consulting and Integration Services 2025 Vendor Assessment* (IDC #US51812824, March 2025)
- *Worldwide Premium Connected Vehicles Forecast, 2024–2028* (IDC #US52766322, January 2025)
- *IDC FutureScape: Worldwide Sustainability/ESG 2025 Predictions* (IDC #US52418624, November 2024)
- *IDC FutureScape: Worldwide Services 2025 Predictions* (IDC #US52634524, October 2024)

- *Market Analysis Perspective: Worldwide Digital Engineering and OT Services, 2024* (IDC #US51625924, September 2024)
- *IDC Market Glance: Digital Engineering and Operational Technology Services, 3Q24* (IDC #US51626424, September 2024)
- *Worldwide Product Engineering and Operational Technology Services Forecast, 2024–2028* (IDC #US51627224, July 2024)
- *Evolution of Connected Infotainment System with In-Vehicle App Store and OTA, 2024* (IDC #US48739122, July 2024)

Synopsis

This IDC study is a vendor assessment of the 2025 IT and engineering services market for software-defined vehicles (SDVs) using the IDC MarketScape model. This assessment discusses both the quantitative and qualitative characteristics for success in the software-defined vehicle life-cycle services market and covers a variety of vendors operating in this market. The evaluation is based on a comprehensive and rigorous framework that compares vendors, assesses them based on certain criteria, and highlights the factors expected to be most important for market success in the short and long terms.

"The shift to software-defined vehicles marks a fundamental transformation in automotive architecture — moving from distributed ECUs to centralized computing platforms powered by advanced SoCs. This evolution enables continuous feature enhancements, autonomous capabilities, and connected services through over-the-air updates, redefining how vehicles are developed, maintained, and experienced throughout their life cycle," says Abhishek Mukherjee, research manager, Digital Engineering and Operational Technology Services at IDC. "As the automotive value chain flattens, IT and engineering service providers are emerging as strategic partners — codeveloping, integrating, and securing next-gen SDV platforms. Their contributions span agile development, DevSecOps, and regulatory compliance while fostering ecosystemwide collaboration with OEMs, hyperscalers, and semiconductor firms to accelerate innovation and time to market."

ABOUT IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications, and consumer technology markets. With more than 1,300 analysts worldwide, IDC offers global, regional, and local expertise on technology, IT benchmarking and sourcing, and industry opportunities and trends in over 110 countries. IDC's analysis and insight helps IT professionals, business executives, and the investment community to make fact-based technology decisions and to achieve their key business objectives. Founded in 1964, IDC is a wholly owned subsidiary of International Data Group (IDG, Inc.).

Global Headquarters

140 Kendrick Street
Building B
Needham, MA 02494
USA
508.872.8200
Twitter: @IDC
blogs.idc.com
www.idc.com