



## Thoughtworks Launches SDV Pulse Report with AWS to Help Companies Navigate Transition to SDV

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CHICAGO--(BUSINESS WIRE)--Jul. 9, 2024-- [Thoughtworks](#) (NASDAQ: TWKS), a global technology consultancy that integrates strategy, design and engineering, today announced the launch of [Software-Defined Vehicle \(SDV\) Pulse](#), an inaugural annual report informed by Thoughtworks' and AWS' observations, conversations and front-line experiences helping their global clients in the automotive industry transition to SDV.

With software deeply embedded in modern vehicles enabling capabilities in everything from passenger infotainment to autonomous driving, the report compiles the most relevant technologies, practice and other key trends for auto manufacturers and suppliers to consider for their SDV strategy.

The SDV Pulse report has forty insights, each represented as a "pulse point", that reflects a technology, practice or trend. Thoughtworks and AWS experts have also identified an adoption stage for where each pulse point currently stands. Broadly, these stages are "concept phase" for pulse points that are emerging yet their potential remains largely unproven; "early adoptions" for pulse points that represent a significant differentiation opportunity for potential early adopters; and "mass adoption" for pulse points that are becoming widespread across the industry so the window to translate them into differentiated value is closing.

"The relationship between the automotive industry and software engineering is, to say the least, complex. One thing everyone agrees on is that this relationship is inescapable. To remain competitive and future-proof, everyone needs to understand the challenges, but also the immense opportunities," said [Michael Fait](#), global head technology for SDV, Thoughtworks.

Highlighted themes in the inaugural SDV Pulse include:

- **In-vehicle zero-trust architecture (ZTA) (concept phase):** ZTA, with its fundamental principle of assuming no inherent trust, offers a robust defense mechanism against cybersecurity risks.
- **Continuous compliance (concept phase):** Organizations can automate compliance checks and audits and integrate tools into software development pipelines, allowing teams to detect and address compliance issues early in the development process.
- **Developer portals for vehicle APIs (early adoption phase):** Multiple OEMs now offer portals to help developers build applications using vehicle APIs. We see these developer portals as a key enabler of SDV ecosystem growth.
- **Rust (early adoption phase):** Rust is a modern alternative to C++ for embedded automotive development that will improve safety and productivity. The source code and qualification documents are open-sourced which is a fundamental step towards using Rust in functional safety-relevant cases.
- **Automotive grade Linux (AGL) (mass adoption phase):** Initially started as a platform for building infotainment systems, AGL is the only project organization that addresses all software in a vehicle. It has now reached a level of maturity where several major automotive manufacturers are adopting it for their production vehicles.
- **Hardware accelerators in the cloud (mass adoption phase):** Automotive companies send and store petabytes of sensor data in the cloud — a process that can be both time-consuming and expensive. Accessing hardware accelerators in the cloud helps enable OEMs to mitigate the challenge of hardware accelerators that are growing scarce and expensive.

"AWS works backwards with customers to address business challenges, and leveraging our collective expertise, AWS and Thoughtworks are helping the industry transition to a software-defined future," said Stefano Marzani, Worldwide Technology Lead, SDV at AWS. "Through increased development in the cloud, companies across the automotive landscape can take advantage of technologies like AI, ML and now generative AI to turn data into insights that will inform the functions and features of tomorrow."

Thoughtworks helps organizations modernize their infrastructure, capabilities and practices in the transition to SDV leveraging the broad and deep portfolio of AWS cloud services. Visit [thoughtworks.com/insights/business](https://www.thoughtworks.com/insights/business) to stay up to date with the latest business and industry insights for digital leaders.

### Supporting resources:

- Read more about [Thoughtworks and Software-defined vehicles](#).
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Thoughtworks is a global technology consultancy that integrates strategy, design and engineering to drive digital innovation. We are over 10,500 people strong across 48 offices in 19 countries. For 30 years, we've delivered extraordinary impact together with our clients by helping them solve complex business problems with technology as the differentiator.

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