

Software Factory — Virtual Validation

A Luxoft Partner Ecosystem Story

In today's software-defined world, vehicles are becoming more software-driven, and the software that runs on ECUs is increasingly delivered separately. As a result, organisations need to take greater control of software and the software cycle by transforming their in-house software development capabilities and developing their own modular software product portfolio. Open source, open systems — which allow for the continuous, iterative improvement of software through updates — play a critical role here.

The Luxoft and Red Hat partnership provides an end-to-end offering that helps accelerate SDV development through virtual validation and the power of open source.

The challenge

As vehicles become increasingly software-defined and their complexity continues to grow, decoupling hardware and software development helps automakers ensure product quality, unlock future business value and provide more seamless experiences to end-users. Case in point — for AD function homologation, automakers need continuous end-to-end testing and validation effort for AD systems at scale. This is especially important as more and more safety-critical AI functions become part of the stack, which also need to be homologated while keeping in mind upcoming AI standards — e.g., ISO 8800. We help automakers and their key partners who need a highly scalable agnostic virtual validation environment solve challenges that include:

- Efficiently developing, testing and delivering software and fulfilling customer requirements
- Shortening development cycles, providing faster feedback to teams
- Decoupling HW/SW to avoid late SW testing and HW availability issues
- Gaining ownership of the software stack to increase control of software reuse strategy and feature road map
- Taking greater control of software and leveraging open source to offer higher value to customers

Our solution

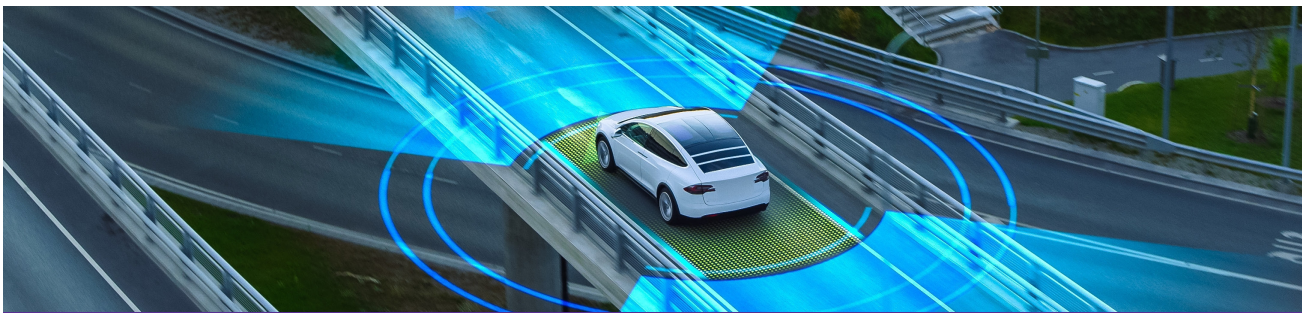
We enable the co-creation of a reusable platform and software factory with a modular product portfolio. This provides full technology and platform ownership for improving the development process while avoiding vendor lock-in. Additionally, partnering with Red Hat enables close collaboration with a proven technology product provider, delivering the necessary scaling capability for automotive software development. Red Hat enables a high degree of automation in the software integration process, while the open-source software approaches of Red Hat allow for seamless integration from the backend to the edge. Ultimately, our solution utilizes open source to build a software factory for tackling the challenge of testing, validating and integrating the complex SDV software stack.

Why work with us?

- Gain higher levels of command and control over your software
- Avoid late integration issues which risk SOPs
- Improve SW quality and increase SW re-use across projects
- Accelerate time-to-market and feature delivery to customers
- Build a unified development ecosystem, solving “it works on my machine”
- Create short development cycles that enable more revenue streams

What makes us different?

Luxoft brings software development capabilities with an inherent understanding of your needs from an automobile value chain perspective. Red Hat brings a complete commitment to open systems and open source with experience of cross-industry software development and cloud. Together, we provide you with a single infrastructure for your development landscape — one which accelerates all automotive software development domains, especially AD-ADAS, through virtual validation.



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