



Driving digital transformation at global scale

Optimizing costs, enabling more efficient operations and delivering on a vision for the future of mobility



Introduction

After several challenging years and despite ongoing supply chain issues, the automotive market is recovering. In 2022, global electric vehicle (EV) sales hit an all-time high and proposed zero-emission legislation will only see numbers increase. Consumers are also demonstrating clear and growing enthusiasm for intelligent in-car features and new mobility solutions. The industry is evolving rapidly.

The four primary pillars of this transformation – Connected, Autonomous, Shared, Electric (CASE) – are critical to the future of the industry. Automakers and their key partners are becoming increasingly software-defined, with software-hardware separation seeing automakers wanting greater control over their development capabilities. Of course, without taking an eye off costs and operational efficiency.





Enabling a systematic and controlled process of change

We understand your need to transform and can support you to do so by operating the underlying technology infrastructure. However, we can be much more than your infrastructure 'backbone'. We also bring the ability and solutions to help with a broad range of operational needs – from product design, demand planning, production, shipping, aftermarket support, and more.

As your Global Value, Innovation, and Transformation Partner, we offer an end-to-end platform that can support you to become a lean, software-driven businesses and establish greater control of your value chain.

Our core business infrastructure connectivity, network architecture modernization and cybersecurity delivered as-a-service can provide the foundations for change. This can include many solutions critical for the development of connected, autonomous vehicles.

Moreover, our technology capabilities can help with cost reduction targets and address key business metrics. For example, the visibility of materials, supply chain integration, production yield intelligence, or on-time customer fulfilment. We can also support transformation by bringing in services from NTT Data, for application development, algorithm development and workflow design.

We can put these in place following a "kaizen" approach for continual change and optimization. This means we provide complete plan, change, and run transformation – from consulting and business advisory to transitioning and migrating to new platforms. Our managed services focus on the long-term and we're always looking to road map your next state.

Eliminating waste while enabling innovation

We know that the journey towards hyperconnectivity, automation, and electrification requires huge vision and enormous change. We also know that eliminating efficiency and waste will always be a priority. With NTT as your partner, we can realize it, together.



We'll support the delivery of enhanced CASE vehicle features and solutions – with a high-capacity, low-latency global IP network backbone, high-speed wireless connectivity, and systems integration. We can help you to **create cost-effective, digital in-vehicle services** through our professional and consulting services, as well as **host vehicle operating systems, applications and data** within our data center and cloud infrastructure.



We'll optimize costs and reduce wastage to make you leaner and more efficient – through the consolidation of data and technologies to reduce IT budgets. We can also deliver significant savings through **solutions for inventory management, minimizing idle material costs, improving production yields** and leveraging real-time data for **supply chain optimization**.



We'll enable data-driven innovation – so you can respond faster to internal challenges and external market change. With AI and data analytics enabling real-time insights, we'll help you to **better understand customer preferences to create more personalized offerings**. Through predictive maintenance and service solutions, you can **proactively respond to equipment failure scenarios**. With blockchain-based technical support services and infrastructures, you'll have the ability to **run and test pilot programs**. And through our software integration, consulting, technical and support services, we can help with the **introduction and deployment of AR/VR/MR applications and systems**.



We'll support end-to-end transformation – enabling the business outcomes that improve the performance, productivity and profitability of your business. Crucially, we understand that transformation isn't only about technology – which is why we help **prepare your people for change**, support the rapid adoption of new processes and ensure they are sustained long-term. So you can **improve collaboration, user experiences, efficiency and better retain your talent**.

Most important of all, we know that while you want to be alleviated from the management of network layers, this doesn't mean you want to hand over the keys to everything. We offer **transparent, co-management controls of your IT, APIs and services**. With retained ownership of your platform and IP, but us managing your infrastructure, you're free to **focus on the software and services that can differentiate your brand**.



Why NTT is the best partner to drive industry evolution

At a technology level, there's nothing that you might require for your present or future needs that we cannot deliver as a service provider and integrator. Our completeness of cloud, AI and data capabilities mean we can meet your requirements across all areas.

We can be a single partner to solve multiple challenges and simplify your approach to transformation because:



We are adaptive to your needs, with global capabilities and local resources for many of our capabilities: We bring strength and depth across all our capabilities in a way that others cannot – with regional or local footprints that can be augmented and supported by regional or global teams.



We're business-focused and industry-focused and seek to understand our clients' needs and how best to accomplish them: We know technology, but also how it impacts people and enables them to do their job. Our culture of adaptable deliver means we bring the most appropriate solutions and support for your needs.



We have a demonstrable commitment to working towards a more sustainable future: With a 150-year heritage of using technology for good, we're helping our clients and the world reach net-zero by 2030. We have prioritized the reduction of our own emissions, as well as our clients. We are building circularity and regenerative principles into our operations and using technology to help protect the natural world.



We deliver the best fit between hyperscale and technology scale, outcome-focused integration, consulting and services: We partner with all the major hyperscale cloud providers. However, because we are also a leading integrator, we can also bring all key technology platforms and solutions together to solve your complex challenges. We ensure you get the right solutions for all your current and future requirements, whatever platform you need.



We deliver world-class security and compliance, which is embedded across infrastructure architecture: Our platform is built to be innately secure and reliable. We provide leading capabilities to deliver a scalable array of security capabilities, including advanced analytics and threat intelligence with full compliance monitoring.

Accelerating automakers into the future

As automakers and their key partners transform into software-enabled organizations, and software grows in importance as a business differentiator, they need to be able to rely on a robust, resilient and built-for-purpose infrastructure that runs under everything.

By providing digital transformation at global scale, we can meet your needs for infrastructure – from cloud to edge – but also support wider challenges for cost reduction and generating new revenues.

We bring a positive vision for what the future can look like and can collaborate with you with the ecosystems, innovation and new business models you need to be able to compete in a software-defined, CASE environment.

With NTT driving digital transformation, together we can help you evolve as an industry that is carbon-free, efficient, seamless and agile.





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