Challenge:
The California startup Canoo is reinventing not just what a vehicle is, but also the business model for how it reaches customers. To bring its ideas to market, Canoo needed a cloud-based digital collaboration platform to facilitate the work of design and engineering experts around the world.

Solution:
With Dassault Systèmes’ 3DEXPERIENCE platform on the cloud, Canoo shares databases and project files with more than 150 collaborators worldwide. With no need to maintain a server and networking infrastructure, the company devotes more resources to competitive product development.

Benefits:
Concurrent development, leveraging the 3DEXPERIENCE platform, keeps Canoo on track to introduce its first vehicle to market in 2021, including design innovations enabling flexible customization of a vehicle’s configuration — from private cars to delivery trucks — all built on a common underbody.
MEANINGFUL PURPOSE
A former BMWi and Deutsche Bank executive, Krause had plenty of time sitting in Los Angeles traffic to think about better ways to provide mobility. He saw more and more cars taxing a road infrastructure that, without routing optimization, was inefficiently used. He saw cars, which spend 90% of their time parked, as underutilized capital investments. And, while electric drive had started to address emission concerns, the industry remained wedded to old design paradigms.

Krause knew that big companies, stuck in the formulas that gave rise to their success, tend to avoid entrepreneurial risk. He formed Canoo with another former BMW executive, Ulrich Kranz, and attracted an executive team of like-minded visionaries.

“We have a different culture because people who work at Canoo come here because they like the purpose,” he said. “I like cars and I also like to solve problems faced by humanity. To work at the forefront of technology for a meaningful purpose is inspiring.”

CLOUD ENABLING GLOBAL COLLABORATION
Canoo started with five users on the 3DEXPERIENCE platform on the cloud, thinking it might have to move to an on-premises deployment when the number of users reached 30. Not so. Today, Canoo easily supports more than 150 users worldwide on the cloud.

“It is a huge relief not to have to manage servers or infrastructure,” said Matt Sommer, in charge of methods at Canoo. “The cloud model also simplifies license management while keeping us on the cutting edge of technology upgrades.”

The solution scales well, he added, with simple onboarding of additional collaborators.

“One of the things I love about 3DEXPERIENCE is how easy it is to add new users,” Sommer said. “They simply log onto the platform and install the media.”

With fewer resources dedicated to the IT infrastructure and backend systems, Canoo can focus on product development and interaction among the engineers.

“We can have collaborative design, where our internal users model and change designs, and then our vendors and contractors can see those alterations in real time,” Sommer said. “We don’t have to manage a file system or where people store their data. They save it into the cloud and people can see it immediately.”

Canoo’s biggest innovation challenge is to quickly combine diverse design and engineering disciplines provided by experts around the world, says Charbonneau.

“The main benefit of concurrent design and engineering is to leverage expertise that resides in different companies, or on different continents, and have them all feed into one product,” Charbonneau said. “Designing on the cloud improves time to market. There are no more files to be exchanged with suppliers, so we can work in the same database.”

To add new users, Canoo also leveraged the platform’s SFE technology supporting body conceptual engineering, performance evaluation, and optimization for the transportation and mobility industry.

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Focus on Canoo
Canoo is a California company creating electric vehicles (EV) made for subscription. The boutique California EV brand plans to launch its first vehicle in cities in 2021, beginning in the United States.

Revenue: N/A
Location: Torrance, California
For more information
https://www.canoo.com

Focus on XD Innovation
XD Innovation is a Dassault Systèmes software partner, education services provider and an accredited certification center with a strong focus on emerging high technology segments (Hyperloop, VTOL, EVs, Robotics, etc.). XD Innovation strives to help their customers innovate more effectively by providing best-in-class technologies powered by Dassault Systèmes’ 3DEXPERIENCE platform and backed by a consultative customer engagement strategy and rapid implementation methods.

For more information
https://www.xdinnovation.com

INNOVATIVE GOALS
Leveraging the design, engineering and collaboration power of the 3DEXPERIENCE platform, Canoo is on track to revolutionize how people think about, acquire, drive and pay for vehicles.

“A car purpose-built for subscription needs to be quite different from a car purpose-built to sell to you. We’re building the car that enables this type of business model,” Krause said. “You’re still going to drive from A to B, and one day the car is going to drive itself from A to B with you inside. But we will have a very different relationship to mobility. You pay a monthly fee and Canoo will take care of everything. It will be seamless. We will liberate you from the inconveniences of vehicle ownership.”

Krause gives credit to its product innovation platform to support Canoo’s unique goals.

“If you create innovation, you need your digital platform to work. In the end, I can really say that Dassault Systèmes’ 3DEXPERIENCE platform is a super good platform to create these types of innovations that we are working on.”

Our 3DEXPERIENCE® platform powers our brand applications, serving 11 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the 3DEXPERIENCE® Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes’ collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 250,000 customers of all sizes in all industries in more than 140 countries. For more information, visit www.3ds.com.