AdaptVis GmbH

VIRTUAL 3D MODELS FROM THE CLOUD

AdaptVis uses the advantages of the public cloud to their full potential: The cloud takes over complex calculations – exactly when they are needed. The start-up has developed a solution that can display highly complex 3D data via the internet on any end device, whether smartphone, tablet or desktop PC. Users don't require any additional software or plug-in – a web browser is all they need.

For example, architects can show their clients 3D models of their new homes before construction has even started; from every perspective, inside and out. And that's just one example of the possible applications. With AdaptVis, companies present their complex 3D data interactively on the Web – and thus save themselves the trouble of producing expensive viewing samples or prototypes.

AdaptVis does all this without its own IT, because the start-up's solution runs in the cloud. The complex calculations take place in the Open Telekom Cloud's high-performance and highly secure German data center.

AT A GLANCE

The Task: AdaptVis has developed a solution that provides complex 3D data interactively and in real time via the internet. This allows users to view the data anywhere, on any device – without additional software or plug-ins. Initially, the start-up used its own servers for this. However, they were too expensive and inflexible.

The Solution: Powerful IT resources from the Open Telekom Cloud. For the complex calculations, the company relies on the computing capacities of high-performance graphic processing units (GPUs).

The Advantages: Thanks to the high performance of GPUs from the Open Telekom Cloud, AdaptVis can deliver even the most complex 3D visualizations via the internet. The 3D views come from the cloud via live stream to smartphones, tablets or desktop PCs – a web browser is all you need. AdaptVis no longer requires its own servers. And thanks to the pay-as-you-go model, the start-up only pays for what it needs.

THE CUSTOMER: ADAPTVIS GMBH

AdaptVis is a spin-off of the University of Osnabrück. Back in 2014 the two company founders, Sascha Kolodzey and Henning Wenke, had an idea: Up until now, users always needed special software or at least a plug-in for their web browser to view 3D data. The founders wanted to change that. They wanted a solution that made it possible to view complex 3D objects in a web browser, without any additional software or plug-ins. Based on this idea, Kolodzey and Wenke developed a solution for cloud-based visualization.

Today, the start-up offers a system that could eliminate the need for expensive viewing samples, prototypes or models. In the future, companies will be able to access interactive 3D visualizations from the cloud in real time by streaming their 3D data via the internet using the AdaptVis solution.

“Numerous companies sell products that come with millions of specifications,” says Henning Wenke of AdaptVis. “For example, houses: there are thousands of colors and materials, from roof tiles to window frames to bathroom tiles. And nobody builds thousands of show homes just to show every conceivable combination. Our solution can quickly and easily make the complex 3D data of objects available to any end device via the internet.” And this is completely independent of the performance of the respective end device: The servers take over the computing-intensive streaming of the bulky 3D data.

THE CHALLENGE

At first, AdaptVis used its own servers. “In the beginning, there was simply nothing else available to us,” says Sascha Kolodzey of AdaptVis. However, this approach was not sustainable for live use. “Our goal is to make our solution available to every user via high-performance live streaming. No matter how complex the database is, no matter how many users want to access it,” says Kolodzey. But depending on the scenario, the capacities required can be enormous. That’s why the founders were looking for an adequate replacement for their servers. The most important criteria for AdaptVis were massive performance, high scalability and a good network connection to ensure the stable streaming of the data.

With AdaptVis, founders Sascha Kolodzey and Henning Wenke offer visualization solutions in the Open Telekom Cloud

THE SOLUTION

AdaptVis ported the visualization solution to the Open Telekom Cloud, Telekom’s OpenStack-based public cloud. Now Kolodzey and Wenke are using high-performance servers with 64 Gigabyte RAM and powerful Nvidia M60 graphics cards with corresponding graphic processing units (GPUs). Depending on the requirements, they can flexibly book additional virtual machines – or switch them off again.

THE CUSTOMER BENEFITS

Now, with AdaptVis’ cloud-based solution, companies can quickly and easily show their customers 3D views of their products from any perspective and any angle via the internet. Because the content in the cloud is calculated using massive resources and streamed over the internet, users get a fluid, detailed, and realistic 3D experience at all times, regardless of their device’s capability.

“Without the scalable resources from the Open Telekom Cloud, we wouldn’t be able to offer our service with so much flexibility and such high performance,” says Wenke. “The strong GPUs always deliver perfect results. And thanks to the scalability, we and our customers can keep costs under control at all times.”

AdaptVis

CONTACT:

www.telekom.de/geschaeftskunden
Email: geschaeftskunden@telekom.de

PUBLISHED BY:

Telekom Deutschland GmbH
Business customers
Landgrabenweg 151
53227 Bonn, Germany

Date: November 2018

LIFE IS FOR SHARING.