VU.CITY®

VU.CITY opens access to 3D digital city twins with Nutanix Xi Frame

VU.CITY chose Nutanix Xi Frame to deliver a fully interactive 3D city Platform used to visualise the impact of development schemes.

Planning a building or campus in a crowded city like London can be a difficult process, so the founders of VU.CITY used their expertise in the planning sector and 3D modelling to enable developers, architects, planning consultants, agents and local planning authorities to see exactly how a development will appear in situ before construction begins. Using the VU.CITY application, users can view schemes from street level, from nearby buildings, or from the vantage point of a protected vista, and make any necessary changes to the development at any early stage in the process. Until now, however, the application had to be deployed and run locally on a workstation or laptop.

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>
> – Anthony Jenkins, Chief Product Officer at VU.CITY

INDUSTRY
Real Estate, Property Development, Planning Authorities

BENEFITS
- Browser delivery means that customers do not need a powerful system with high-end GPUs to use the VU.CITY application

- Ease of access potentially opens up VU.CITY to a broader audience than just property developers and planning authorities

SOLUTION
Nutanix Xi Frame Desktop as a Service (DaaS) on Google Cloud Platform with Google Cloud GPUs

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CHALLENGES
VU.CITY provides 3D interactive digital platforms of key cities such as London, which enable users such as architects, project managers, planning consultants, agents and town planners to collaborate on new developments. It allows them to see exactly how a planned site would appear when completed, from street level, from other buildings, and from key vantage points, allowing all the stakeholders to spot any potential issues in relation to the development and its surrounding area at an early stage, thus speeding up the planning process.

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The level of detail provided by VU.CITY models means that the application requires hefty hardware, equivalent to a professional workstation or high-end gaming laptop equipped with a GPU accelerator. This causes issues for some potential customers, who may not have such high-end systems, and restricts the ability to scale out to a larger number of users.

"We actually built the VU.CITY product in a gaming engine called Unity 3D and it requires a really powerful computer, which has been a bit of an issue for us," said Anthony Jenkins, Chief Product Officer at VU.CITY.

Keen to meet the needs of all their customers, especially those of smaller companies that may not have access to high-end hardware, VU.CITY sought a way of making its 3D interactive digital models more widely accessible.

SOLUTION

London-based, VU.CITY was already piloting a cloud-hosted delivery system when the UK was placed into lockdown because of the COVID-19 pandemic, which provided an opportunity to open up the pilot to its entire user base in order to allow their work to continue while employees had to remain at home.

The solution uses Nutanix Xi Frame to host the application and interactive digital models on Google Cloud Platform, with user access provided via a browser. Xi frame is a Desktop as a Service (DaaS) tool architected specifically for cloud deployment, which is why it makes use of a browser for access, instead of requiring the end user to install a dedicated viewer to access remote applications. This latter is a key part in delivering seamless access to VU.CITY customers.

"We didn't want it to look like they are logging into a remote desktop," said Jenkins. "So with Xi Frame we've now got it set up so they just click on VU.CITY Cloud, and a few seconds later it launches straight into VU.CITY and brings up their license information as to which cities they've got."

The company rejected other virtual desktop platforms for this reason, and even tried building its own solution, until it discovered Xi Frame.

"We realised that Frame is already built, with all of the integrations necessary, so we opted for that pretty swiftly when we realised what an undertaking it would be to do it ourselves," Jenkins explained.

CUSTOMER OUTCOMES

With Nutanix Xi Frame already available on Google Cloud Platform, the VU.CITY team found it simple to get their application deployed to the Frame service and up and running in the cloud. Because VU.CITY already used Google Cloud for its customer dashboard and cloud storage for customers to store project files, it was also easy to integrate with existing customer projects, and feedback from users has been good, according to VU.CITY.

"Customers like the local planning authorities, they were a bit stuck because of the hardware requirements of the application, so they've been absolutely loving it and there's a lot of uptake, which is good because they are our most strategic customers as decision makers in this whole process," said Jenkins.

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NEXT STEPS

With VU.CITY Cloud operational and successfully delivering the same experience to end users as running the application and 3D interactive digital models locally, the company is now looking at how to commercially license this method of access. It may even end up becoming the primary route for delivering its product.

"I don't see it as a separate product, because it's the same application as the desktop product, it's just a different mechanism of delivery, and so we'll continue to develop it as we develop the desktop product. So the future is very much figuring out how we build this into our automated deployment pipeline."

VU.CITY is also set to expand the number of cities it supports as 3D interactive digital Platform beyond London and about a dozen others currently available to every major city in the world. The firm said it needs to figure out the best way to scale up, and that Nutanix Xi Frame will play a key part in helping it achieve this.