

Case Study:

Virtual Reality Empathy Platform (VR-EP)

The Customer

Virtual Reality Empathy Platform (VR-EP) is a Scottish start-up with a mission to revolutionise designing for dementia and improving the lives of people living with dementia. VR-EP's innovative technology utilising Virtual Reality aims to improve the quality of life and prolongs independent living for those living with dementia through designing with Empathy.

Business Challenges

As VR-EP's solution gained market traction, their current on-premises architecture and hardware began to inhibit their growth ambitions and commercial viability for the solution while increasing the operational burden. The resulting upfront commercial costs of the solution were proving to be a significant barrier for prospective customers.

Products

 transACT Cloud Management Suite	 Amazon DynamoDB	 AWS Lambda	 Amazon CloudWatch
 Amazon Elastic Compute Cloud (EC2)	 AWS X-Ray	 Amazon Simple Storage Service (S3)	 Amazon Simple Notification Service (SNS)

“ The team at transACT truly understood our business challenges from the very start. They worked with us to develop a completely new business model on AWS that has transformed our market strategy and made our Dementia DX (design experience) product more accessible and affordable to those who need it the most. ”

Kevin Gordon, Co-Founder at VR-EP



“ 50% server cost reduction accelerates VR Dementia design and awareness platform VR-EP to market ”

The Customer

Virtual Reality Empathy Platform (VR-EP) is a Scottish start-up with a mission to revolutionise designing for dementia and improving the lives of people living with dementia. The company seeks to tackle one of the most daunting global health challenges by utilising technology and innovation to improve the quality of life and prolong independent living for those living with dementia.

Dementia is a major challenge, both for individuals and society as a whole. The impact of this condition has far-reaching implications; in terms of cost, in the UK alone, the NHS spends an estimated £25 billion* annually on dementia care and treatment.

Business Challenges

VR-EP launched the Dementia DX product, which uses virtual reality and experiential learning to bridge the empathy gap between those with dementia and their families, friends, and caregivers. Dementia DX also drives the creation of more inclusive products and environments for individuals with dementia. By providing a better understanding of the visual perceptual challenges associated with the condition, designers and architects could create better products and environments that are more empathetic and easier for individuals with dementia to navigate.

VR-EP faced several critical challenges as a start-up business. As their solution gained market traction, their current on-premises architecture and hardware began to inhibit their growth ambitions and commercial viability for the solution while increasing the operational burden. The resulting upfront commercial costs of the product were proving to be a significant barrier for prospective customers.

The team decided to investigate a pay-as-you-go model for their IT infrastructure running costs. This approach would make the solution more accessible to a wider range of customers at an attractive market price which was exceptionally important to the team at VR-EP.

VR-EP also recognised the need for a business model that was not only viable today but one which scaled with their customer demands. This meant making technology and skills decisions for the future, ensuring considerations were made today for what lay ahead tomorrow.

Working Together

transACT account team and migration consultants worked closely with VR-EP to understand their business objectives and the challenges they faced.

transACT methodology was centred around a 'working backwards' approach to ensure the business outcomes VR-EP required were clearly understood and any technology decisions were aligned towards the achievement of these outcomes.

After assessing VR-EP's current infrastructure, it was clear their servers were vastly over-provisioned for their immediate application demands with minimal opportunity to simplify and consolidate resources due to physical hardware interdependencies. This was not an optimal use of capacity resulting in unnecessary costs and inefficiencies early on while maintaining business as usual through a small team. The assessment also revealed potential single points of failure, which limited the team's flexibility to explore a new approach without significant Capex involvement.

As an accredited AWS Partner, transACT recommended VR-EP to explore a risk-free trial deployment of their solution on the cloud as a proof-of-concept (PoC) using AWS Partner funding initiatives. Through a combination of AWS EC2 services and server right-sizing activities, transACT cloud specialists were able to immediately demonstrate the same smooth application experiences as their current on-premises deployments were possible using notably reduced compute resources.

By utilising AWS CloudWatch for server performance monitoring, VR-EP gained a deeper understanding of their true application needs and usage patterns. Through EC2 Amazon Machine Images (AMIs) features for application server cloning, VR-EP was able to halve the onboarding activities previously involved but also gain worldwide deployment capabilities not previously possible by using the extensive AWS global cloud infrastructure.

As a value-add, transACT provided VR-EP with access to their Cloud Management Portal (TCMP), providing ongoing monitoring, analytics, and best practices recommendations across their AWS environment. TCMP offers a comprehensive 360-degree view of their cloud environment, enabling VR-EP to predict costs accurately, view cost-saving initiatives and make proactive decisions.

VR-EP gained greater cost visibility and team capacity through simplified operations and eliminating support tasks previously associated with physical hardware maintenance. This additional capacity enabled the VR-EP team to explore new architecture patterns and cost-saving initiatives, including automated shut-down of idle services or resources outside of business hours through transACT expert guidance.

Outcomes

Working with transACT and AWS, VR-EP has completely remodelled its go-to-market (GTM) strategy, transforming the commercial viability and marketability of its Dementia DX product.

"The team at transACT truly understood our business challenges from the very start, stated Kevin Gordon, Founder at VR-EP, "they worked with us to develop a completely new business model on AWS that has transformed our market strategy and made our Dementia DX product more accessible and affordable to those who need it the most."

By moving to AWS, VR-EP achieved a 75% reduction in CPU and memory requirements for their applications. By right sizing their infrastructure, they achieved the same level of functionality with fewer resources while maintaining highly performant applications. As a result, they achieved significant cost savings and improved efficiencies by simply paying for only what they used.

VR-EP also saw an impressive 95% reduction in storage footprint by moving to AWS and capitalizing on provisioning storage to actual application needs. By reducing the required storage resources, VR-EP could consume cloud storage more efficiently and cost-effectively, further reducing the overall cost of their infrastructure.

Kevin Gordon added, "the project delivered results from day one, the new subscription service provided an affordable cost model for our customers, and since then, we are scaling quickly and globally, which, being on AWS, gives us no issues; we can onboard new clients in just a couple of clicks whilst having visibility of all our technology costs."

Working with transACT and AWS, VR-EP has successfully transformed its go-to-market (GTM) strategy, resulting in a significant improvement in the commercial viability and marketability of its Dementia DX product. By leveraging the AWS cloud, VR-EP was able to achieve greater efficiency and agility, enabling them to focus on their core business objectives and make a lasting impact on the challenges associated with dementia. Customers kept telling us family and friends need to experience the cognitive and perceptual challenges that can often accompany dementia. This fantastic platform helps us deliver this.



Developed and delivered in partnership with Age Scotland



* <https://dementiastatistics.org/statistics/cost-and-projections-in-the-uk-and-globally-3/>