VFX studio Jellyfish Pictures unchains artists from their desks thanks to DaaS.

Challenge

Today the firm behind the BBC's Inside the Human Body, Planet Dinosaur and commercials such as Peckish, sofaworks Sloth Neal and the Natural History Museum Alive 3D, strives to remain at the forefront of technology and design by offering something extra, both in terms of creativity and approach.

Early in 2013 Jellyfish Pictures outgrew their Noho base in Margaret Street. With restrictions on power and office space at a premium, the challenge was to find a solution that would keep them in the heart of London's thriving VFX community without compromising on quality and client service.

Solution

Jellyfish Pictures has partnered with Network and Cloud Provider Exponential-e to develop a new Cloud platform known as Desktop-as-a-Service for Graphic Processing Units (DaaS - GPU) powered by NVIDIA GRID™ technology, which enables employees to work remotely without effecting quality, productivity or creativity. They can now utilise persistent virtualised desktops with all of their usual computing power, software applications and intensive creative tools. All their documents and files from their local storage are accessed directly from the virtual desktops giving seamless integration between Cloud resource and local network. Graphic artists and editors can work as if they were using a physical workstation, the new Cloud machines perform up to 3 - 4 times faster than normal desk-based computers performing like-for-like tasks as well as achieving 25 - 30 frames per second. This improves the productivity of graphic artists and enables the company to deliver faster turnaround to meet tight production deadlines.

Crucially, it also means that employees are no longer tied to a physical desk and have the ability to work from any device and any location, making the company highly flexible when bidding for future work. It has supported other developments within the Jellyfish Group including the opening of their new purpose built, 4,000 square foot studio in Brixton, where 60 artists and supporting production staff are based. The new system means that work can be shared between studios, so that employees and contract / remote workers can collaborate on projects despite being based in separate offices.

JELLYFISH PICTURES

Jellyfish Pictures is an independent visual effects and animation studio with facilities in Noho and Brixton Village, London. Founded in 2001, the company is one of the most respected boutique facilities in London and has grown from strength to strength, gathering together some of the most talented individuals in the field to help create highly original, BAFTA-award winning work.

DON'T JUST TAKE OUR WORD FOR IT

"The nature of the VFX industry is project-based, and we often require technology resources and freelancers on demand. Exponential-e's solution enables us to respond quickly to these fluctuating project requirements.

Scaling up and down for productions - where you might be operating remotely from several locations, such as on set, on location and in the studio, at speed with security and privacy centre stage - is difficult to say the least."

Jeremy Smith CTO - **Jellyfish Pictures**.

Exponential-e Ltd
100 Leman Street, London E1 8EU

Telephone
+44 (0) 845 470 4001

Visit the website
www.exponential-e.com

Email
info@exponential-e.com

Follow us on Twitter
@exponential_e

Using Exponential-e's low latency, private Network powered by NVIDIA GRID™ technology gives the graphic artists access to all of the creative tools they need, from Nuke to Softimage, virtually, from any device anywhere in the world.

As they're essentially accessing a Data Centre, Jellyfish's creative team can harness the power of the platform for both application performance and rendering, but with asset management and storage taken care of too - so nothing would be lost if a computer or terminal crashed or failed.

> "The nature of the VFX industry is project-based, and we often require technology resources and freelancers on demand. Exponential-e's solution enables us to respond quickly to these fluctuating project requirements" explains Jeremy Smith, CTO of Jellyfish.

> "Scaling up and down for productions - where you might be operating remotely from several locations, such as on set, on location and in the studio, at speed with security and privacy centre stage - is difficult to say the least. Operationally, we no

longer need to rely solely on our existing architecture when further processing power or capacity is required. Instead, our staff can spin-up additional resources on demand."

Exponential-e's Cloud platform built on NVIDIA's GRID™ technology uses servers packed with high-performance GRID GPUs. VMWare's Horizon DaaS platform provided the virtualisation, the low latency 100GigE Network between Jellyfish's two studios means that graphic artists using the virtualised desktops doesn't cause any problems with screen refreshes and rendering. With multi-million dollar production budgets in play the security of desktop virtualisation is of paramount importance. However, the hosted service that Jellyfish uses remains within its Local Area Network (LAN) and on the clean side of the Firewall, meaning it doesn't transcend the public Internet. As a result, security and privacy concerns are negated.

This investment in Network resources was absolutely critical as the performance of all Cloud services are directly dependent on the speed of the Network infrastructure, with which it connects to the Data Centre. When Jellyfish artists are working round the clock in different studios to a strict deadline, removing all potential loss of productivity from lag is vital.

RESULTS

The virtualised desktop environment has changed the way Jellyfish works and competes in the industry - the company is now capable of moving from a capital expenditure business model (CAPEX) to an operating expenditure structure (OPEX). This reduces much of the upfront costs when Jellyfish expands to take on a big project ensuring that they can align budgets with projects. For the first time, the company can be highly flexible and confident when bidding for new work.

Even more valuable, GRID™ technology has removed the chains between artist, studio and desktop.

Jeremy Smith explains,

> "In the past, the huge amounts of processing power needed for VFX work meant that our artists, designers and developers were tied to a physical desktop. But now, the traditional VFX workstation has been transformed - by adopting a hybrid, Cloud-based platform we can work from anywhere and on any supported device. Through our work with Exponential-e and NVIDIA, we are able to create a system that allows work to be shared in real time between our studios so that our employees and contract / remote workers can effectively collaborate on projects all on the same logical workspace."

> "Today, Jellyfish can foster a much more creative environment for its employees. Not only can they can easily share work in real-time between their two studios, work seamlessly from virtually any device and from any location, they're also able to hire the best creative, talent, regardless of whether or not they prefer to work remotely."

ABOUT EXPONENTIAL-E

Innovation is at the core of Exponential-e, and has been since our inception in 2002. We wholly own our super-fast Network, and our fusion of complementary technologies - a carrier-class Network and Cloud infrastructure - means we can deliver enterprise applications at wire speed for a superior end-user experience. We deliver scalable, dynamic and bespoke solutions. Renowned for our

responsiveness, coupled with our customer centric approach, and a UK based 24 / 7 x 365 service desk, means we offer unrivalled expertise.

To find out more about Exponential-e visit
www.exponential-e.com/Jellyfish
or email info@exponential-e.com

Exponential-e Ltd
100 Leman Street, London E1 8EU

Telephone
+44 (0) 845 470 4001

Visit the website
www.exponential-e.com

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