

Virtual Studio

The studio of tomorrow,
ready today



Introduction

The media industry is in the throes of adapting to the “new normal”. With the global COVID-19 pandemic forcing businesses to move to a remote working model, the way entertainment is produced and consumed has also shifted. Studios need not only to implement seamless remote operations, but face trends that have only been made more challenging by the new world:

- Demand from consumers for personalised entertainment, especially in the form of episodic, streamed media, means that studios need to deliver higher volumes of content with greater quality - but without further investment into additional resources
- The complexity of VFX graphics has increased tenfold over the past two decades alone, as blockbusters begin to introduce photo-realistic graphics. With an even greater focus on animation now physical acting is much less practical, the need for high-quality graphics that are delivered quickly and without mistakes is paramount.

However, with studios still heavily dependent on on-premises infrastructure and workstations, and regulations from bodies such as the MPAA preventing media from leaving these restricted environments, the transition is fraught with challenges.

Studios need a way to enable remote working across every aspect of the production cycle, without losing the power or agility that underpins their competitiveness.



36%
increase
in scripted
television
originals
in last 5 years

The Studio of Tomorrow - Ready Today

Many studios today operate in a hybrid model - single-studio facilities and premises-based workstations are supported with some cloud overflow, for additional processing power and file storage.

Virtual Studio is the next stage in the evolution to full remote working. It provides an end-to-end solution that allows media organisations to move every area of their production into a secure, scalable cloud environment, allowing global teams to collaborate in a single environment while providing access to as much processing resource as needed to respond to compressed delivery schedules.

Seamless Remote Working

Virtual workstations streaming technology, provided by industry-leading partner Teradici, allow artists to remotely manage, animate and render content while still using their favourite VFX applications, such as Maya, Nuke and Houdini, and without losing any of the

VFX applications, such as Maya, Nuke and Houdini, and without losing any of the processing power critical to successfully delivering on high-resolution projects. Studios can now access the best global talent without being restricted by geography.

Virtual workstations ensure that IPR never leaves the Cloud datacentre which guarantees security. Production such as rendering can also be completely managed through a cloud-based interface.

Fully Secure File Access

Through our partners NetApp, Google & Qumulo, Virtual Studio provides a file management layer that adheres to world-leading security standards and provides sophisticated cloud-based access to all required media resources, wherever the location.



40%

**faster rendering
times than
on-premise solutions
television originals
in last 5 years**

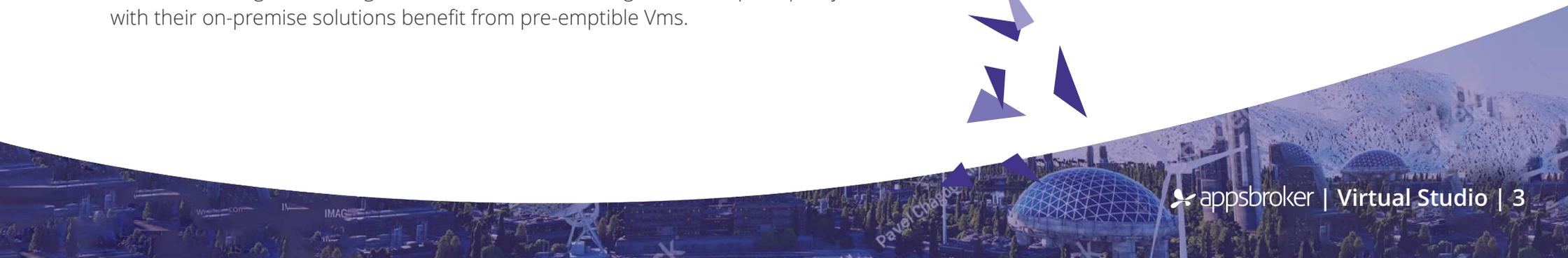
The Studio of Tomorrow Deployed Today

Supported by the enormous scalability of Google Cloud Platform, these filer solutions enable unparalleled storage sizes, and high performance access for rendering and file retrieval at the speed artists work at. This guarantees the same and often better experience as working directly on-premises.

Increased Performance at Pay-per-use Prices

The joint ECCoE (Extreme Cloud Centre of Excellence) with Google Cloud and Intel enables organisations to test out high-performance workloads, such as resource-intensive rendering, on Google Cloud Platform with the latest Intel chipset. Using the cloud benefits from predictable and on-demand access to additional capacity.

Through this model, studios gain complete oversight of cost forecasts, and can set up rules to balance VM deployment to balance between budget and speed of rendering - or can activate as many VMs are possible to rapidly accomplish time-critical rendering tasks. Budget-conscious studios looking to achieve price parity with their on-premise solutions benefit from pre-emptible VMs.



Virtual Studio by Stages



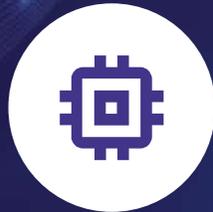
Build

Customize your virtual workstation with NVIDIA GPUs



Deliver

Deliver the VM to your end users, the artists



Orchestrate

Deploy, manage and assign hundreds of VMs



Store

High capacity, high speed shared storage from all workstations



Render

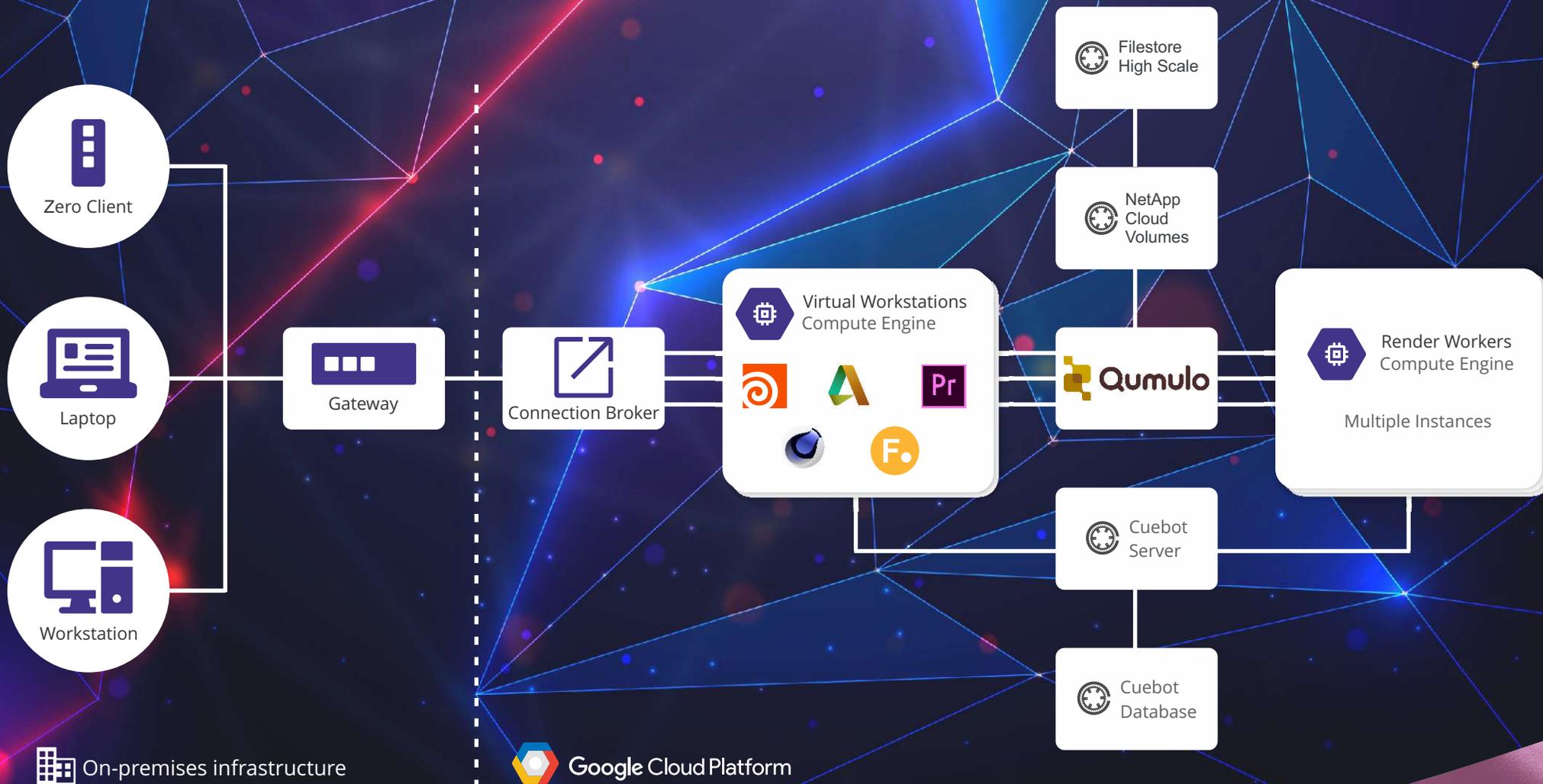
Render at massive scale on a per second basis



Delight

With the help of a global team, bring your vision to life

How it Works



Experience Extraordinary Proof of Concept

Appsbroker can offer you the chance to run a Proof of Concept (PoC) with your remote working artists, allowing them to experience the extraordinary possibilities of a full Virtual Studio.

The PoC is a four-week engagement, letting you quickly understand how you can realise the studio of tomorrow.

Please contact us on info@appsbroker.com to learn more.

Case Study - Large-Scale VFX Rendering

The Challenge

The client is an international media and entertainment organisation, providing products and services, such as VFX rendering, that enable the production of major global blockbusters.

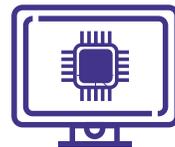
As innovations such as photo-realistic 3D animation and 4K content continue to drive up possibilities and expectations around high-definition rendering, the creative and technical resource demands faced by the client have never been greater.

Some studios and filmmakers expecting to render effects and animations on the same day as filming, which creates immense competition in the VFX market, with those able to react in an agile way gaining more business.

However, the industry moves at such pace that forecasting demand can be

impossible, and the customer's premises-based VMs could rapidly reach capacity.

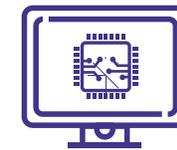
Furthermore, to support and manage queuing of render jobs, the customer had a large support team of animation wranglers and engineers that was split across the globe and several different time zones, making it difficult to balance the speed of rendering with client budgets.



>30%

compute power increase, at a lower cost than alternative CPU architectures

Results



1 million additional cores of capacity activated over the course of a single weekend to guarantee that a stringent production deadline could be met

Case Study - Large-Scale VFX Rendering

The Solution

Appsbroker's engineering team developed a bespoke solution to integrate with the client's VFX scheduler. This connected the existing premises-based solution to Google Cloud Platform (GCP), using VM resources on Google Compute Engine (GCE) that are powered by the world-class Intel Xeon Scalable Processor, Skylake.

This allows the client to access massive compute on-demand - through an OpEx pay-per-use model - without having to invest any more CapEX into growing their existing premises-based environments. The scheduler automatically takes on additional render jobs through GCP based on configurable rules, allowing the global teams to manage extremely variable levels of demand while spending only what they need.

In this way, the team can easily provision more VMs to ensure that resource-intensive, time-critical projects can be completed without impacting on other projects, while giving the teams oversight of the precise amount of additional spend required to meet the tight deadlines.



Appsbroker

Manages the one-of-a-kind ECCoE high-performance computing initiative with Google Cloud and Intel

Award-winning Google Cloud partner, experienced in delivering seamless, end-to-end VFX solutions together with industry-leading partners

Holder of a Google Specialisation in Infrastructure, indicating adeptness at migrating and managing large-scale, complex environments within GCP

Over 12 years of experience in collaborating with organisations to scope out their requirements and deliver the solution they need

Google Cloud

Infrastructure optimised for scaling on-demand to provide additional VM resources when required, without charging for these when not in use

ECCoE initiative with Appsbroker and Intel provides the latest Intel chipsets, providing access to cutting-edge high-performance compute

Support for single, cohesive end-to-end virtual studio through Google Cloud with MPAA adherence

Extensive partner base to guarantee best-in-class Virtual Studio functionality at every stage