Envy grows with Pixit

Amazing Interiors – Barcroft Studios for Netflix

ENVY is an industry leading full service, end-to-end post production facility. Our technical setup is second to none, expertly developed to allow flexibility; offering streamlined and bespoke workflows to facilitate almost any requirement from HD to UHD, 4K and Dolby Vision HDR. ENVY is dedicated to providing cutting edge longform and shortform services, delivering the highest standard of work from our talented artists, state of the art equipment and vast wealth of Post Production experience. Our facilities comprise offline, online, Baselight grading and audio suites (including Dolby Atmos), VFX studio with over 200 suites. Recently completed projects include: **Top Gear, Leaving Neverland, Louis Theroux – The Night in Question, Amazing Interiors, Suzuki sponsorship Idents, Serial Killer with Piers Morgan** and **The Voice UK**

Amazing Interiors is a 12-part American UHD reality television show from Barcroft Studios for Netflix that opens the door to a world of creativity and eccentricity. The series looks at a number of homes that may seem ordinary on the outside, but whose interiors are extraordinary – ranging from backyard roller coasters to an indoor aquarium – and everything in-between.

The integration of the Pixit SAN at the heart of our operations between Online and Grade gives us the ability to edit, QC and review in realtime using uncompressed UHD workflows. Pixit has proved to be an essential media hub when working on UHD shows such as **Amazing Interiors**.

Envy's CTO Daniel Sassen explains how he resisted buying in to a SAN until he saw Pixit Media's PixStor in 2011 – an elegant GPFS-based, ethernet connected storage solution. The partnership has developed as Envy has continued to grow

We first bought in to PixStor eight years ago, in 2011, and we have been working with Pixit ever since. The Pixit guys are different – they come from post and understand what we do and what we need.

Before 2011 I'd always resisted buying in to a fibre-networked SAN as the vendors were all offering SANs with built-in flaws. Basically you'd expect performance degradation through fragmentation over time.

The Pixit Media solution was different - running on top of GPFS and assuming 100% fragmentation so performance stays the same, even when the storage is max'ed out.

We originally only had 36TB of working high-performance storage. And it delivered over lossless Ethernet – we didn't need expensive fibre. The final driver for me was our need for faster VFX workflows between our Flames and Baselights. PixStor gave us 10Gb clients off a 40Gb backbone at that time.

The pricing was also attractive. We weren't locked in to any single storage vendor. I'm not suggesting you can use any old storage picked up on Berwick St Market, but Pixit helped us hunt down the right storage and we got by far the best cost per gigabyte. The first two systems were IBM, then Netapp and our last storage upgrade was from Dell.

They just get it. They work with us to develop systems and solutions that address our specific technical and business challenges. It's like they're an extension of our Engineering team. If there's a problem, Pixit always has our back. The support team gives us a single point of contact for all support issues, which is crucial in a multi-vendor solution. Pixit basically does all the chasing for you which adds great value. They've never let us down.

ENVY's latest system

By the time we made our fourth PixStor investment, Pixit had developed automation tools to make the data migration as easy as possible. Also each GPFS client only takes between 30 to 45 minutes to setup. We've now got 1.5PB of storage - 10G clients - capacity for 25G clients for UHD with no additional configuration sitting on a 100G backbone. The install couldn't have run any better.

Our SAN has to work with OSX, Windows and Linux and some of our VFX workflows need a high bandwidth link to our other buildings' Pixit SAN. Nearly every client in our Longform finishing workflow requires a guaranteed 10G SAN connection - from Avid Onlines to Transcoding Farms, QC equipment and Mastering Systems. Our SAN is the hub for all our mastering workflows while offline editorial has access to the SAN via a PixStor Gateway.

Our finishing suites can share media, project data and work collaboratively up to 16bit OpenEXR, which would be challenging (and slow)

without reliable and fast connectivity. Our PixStor guarantees to deliver 14GB/s of aggregate performance to the network - all day, every day. And it does. We can get 10 streams of 16bit UHD OpenEXR @ 25fps (data rate of 1.25GB/s) without affecting other network users.

The PixStor system looks after itself. The Pixit support team receives alerts from the storage of Predictive Drive Failures and they can tell us before the drive fails and send a replacement. We also get weekly health reports on both systems.

Ever increasing demands

Looking ahead I can see us needing more capacity to store 8K high res files and more bandwidth on the SAN to play these back at HFR (NVME tier) and faster client connectivity with faster disk rebuild times.

As of 2018, we have 1500TB of storage - that's over 40x our original 2011 SAN and equates to an average

growth rate in storage of 84% per year - which extrapolated suggests 31,000TB by 2023!

The PixStor platform is more than just storage. It's the workflow hub for the whole facility across all of our buildings. Pixit's focus is on performance, usability, scalability and security, which pretty much sums up what we're looking for.

> ## The PixStor platform is more than just storage
> **Daniel Sassen**
> CTO

The future

I've had an early preview of PixStor 5. Pixit will be fully automating cloud integration for burst render and

collaborative cloud-based workflows. I can see this playing out well for film studios where there's a growing trend for spreading large (particularly VFX heavy) projects across the world. There are also some clever cloud-based tools coming through to run on Google and AWS for enhanced intelligent search powered by AI and machine learning, which is definitely on-trend.

The crucial development for us is on security. Security is becoming an increasingly important focus for our customers. Pixit is now fully aligned with the strict new TPN security standards through containerisation and without any impact on productivity. This is something we are definitely looking forward to exploring and is very in tune with the way things are going.

I have every faith that Pixit will remain our first choice partner, working with us to deliver bespoke media storage.