

A V E R E

About Image Engine

Image Engine is a visual effects (VFX) company located in Vancouver, British Columbia. As a leading industry innovator, Image Engine's work can be seen in recent action, science fiction and fantasy movies that include *Zero Dark Thirty*, *District 9*, *Battleship* and *Twilight: Eclipse*.

Customer Challenges

- Major issues getting to 90,000 IOPS—there was a noticeable slowdown in the environment—and interactive users were effected.
- Managing both storage system performance and capacity—as the amount of storage and feature-film projects grows.

Avere Benefits

- Dynamic tiering with Flash increases performance to over 150,000 IOPS.
- Avere's FXT Edge filer separates performance from capacity so each can scale separately.

Image Engine Taps Avere to Cut Costs and Improve Performance on Feature Films

Avere FXT Edge Filers Enable Scaling Performance and Capacity Separately for Significant Cost Savings

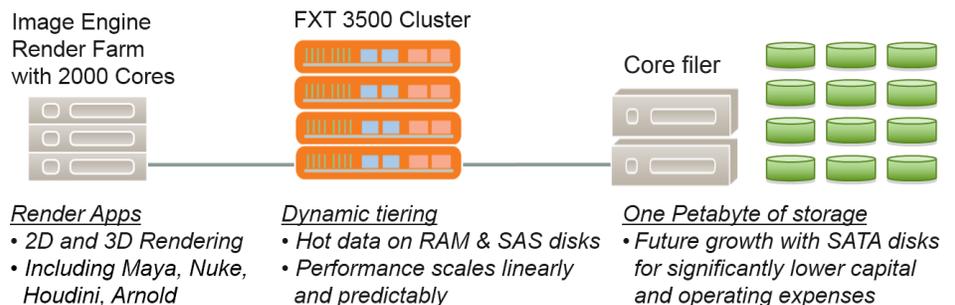
Image Engine, a visual effects (VFX) company for feature films, recently encountered what many in the media and entertainment industry discover: a performance ceiling with their current storage environment.

"For most VFX houses, you generate a lot of IOPS," according to Gino Del Rosario, Head of Technology for Image Engine. "For us, there was a noticeable slowdown in the environment as we approached 90,000 IOPS."

To improve performance and break through that ceiling, they considered several NAS vendor options. But none adequately addressed Image Engine's needs for future growth.

"Historically people have addressed this issue within the core filer itself," explains Del Rosario, "either by adding more core filers or upgrading to filers with faster processors. But that means the core filer would still have to manage both performance and capacity."

The answer for Image Engine: add a cluster of FXT 3500 Edge filers from Avere.



"All of our software applications currently run through the Avere nodes," says Del Rosario. "That includes all 3D and 2D applications—like Maya, Nuke, Houdini, and Arnold. We are sending everything through the Avere storage cluster. Now, with Avere, we're pushing 125,000 to 150,000 IOPS with no slowdown in sight."

“We’re seeing a significant decrease in equipment costs just using SATA drives versus SAS. And the footprint of 1 petabyte of storage is much smaller using SATA, so we expect to regain precious datacenter space.”

“Image Engine’s continued success has required a greater amount of rendering which puts significant pressure on the servers and systems. By leveraging Avere, we are able to scale as well as send and route massively large files without any challenges.”

Gino Del Rosario,
Head of Technology for Image Engine

“The primary benefit that we get from Avere is that it lets us rethink our storage,” Del Rosario explains. “We continually had an unhealthy reliance on SAS disks—always juggling their performance against their capacity. And I’d constantly have to ask myself ‘Is this the most cost-effective way to have enough of both?’

“Avere lets me separate performance from capacity and gives me the most flexibility to address studio needs in a compartmentalized manner. So now, as we grow the Avere cluster, we can think more about performance and capacity as separate from each other.”

Avere’s FXT user interface provides benefits too. “The Avere cluster gives us fantastic monitoring to pinpoint storage hot spots, IOPS and latency trends. That lets us plan way ahead. We can now actually pinpoint our trends, latency or IOPS so we can accurately add new capacity as needed.”

The move to low-cost SATA drives has had another positive effect: driving down costs for both capital equipment and operations.

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Further, new Avere software products—FlashMove and FlashMirror—are also beneficial. “In the VFX environment we always need to move large datasets—a lot of physical storage volumes have a finite capacity and you need to move things around efficiently—that’s a huge value to us.”

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