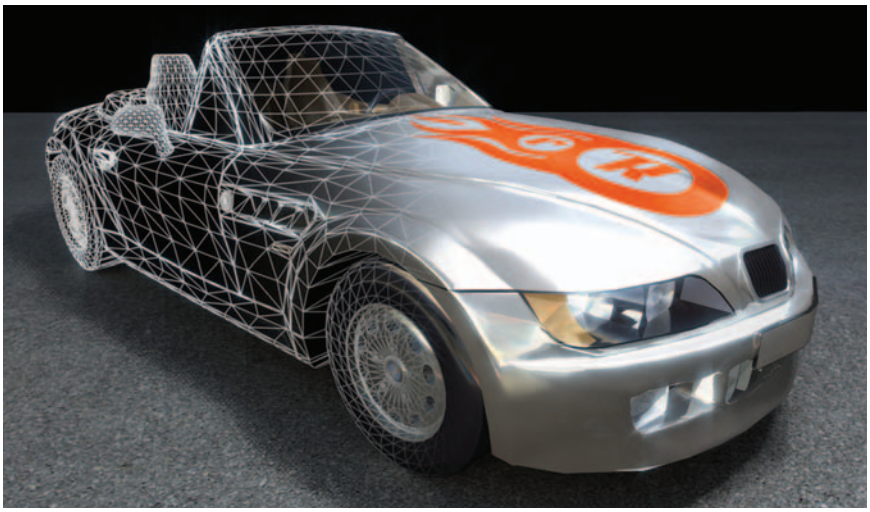
RenderRocket: IBM Deep Computing Capacity on Demand meets the future of animation

Overview

- ***Challenge***
  Secure a flexible, scalable amount of processing power to provide a cost-effective on demand solution to shorten time-to-market of animation processes
- ***Why Become an On Demand Business?***
  To help reduce business risk with a scalable, resilient digital media infrastructure
- ***Solution***
  An end-to-end, rendering on demand solution hosted in an IBM DCCoD center, based on IBM @server® xSeries® systems running Linux® or Microsoft® Windows®
- ***Key Benefits***
  Enables RenderRocket to offer a secure, stable "pay for use" rendering time on demand service; reduces cost; lowers business risk; streamlines the rendering process

» **On Demand Business defined**
An enterprise whose business processes – integrated end-to-end across the company and with key partners, suppliers and customers – can respond with speed to any customer demand, market opportunity or external threat.



Designed by animators for animators
Los Angeles, California-based RenderRocket provides 3D rendering services on demand to companies worldwide, from broadcast/TV producers and leading visual effects companies such as EngineRoom to well-known film title producers like Prologue Films, as well as animation, video games, product design and photography studios. With broad experience in both animation and Internet application development, the company offers its customers a truly novel, Web-based service.

Using RenderRocket, animators can reserve time on, and send their work to a remotely located IBM Deep Computing Capacity on Demand (DCCoD) render farm equipped with massive supercomputing power.

This digital media solution offers a tremendous benefit to those businesses finding it difficult to justify large-scale investments in servers and related expenses, as well as having to manage additional unplanned workloads, obtain more capacity or meet tight deadlines during "crunch time."

Established in 2004, RenderRocket wanted to find a way to help companies in the entertainment industry stay ahead of the technology curve while keeping pace with an extremely demanding, fast-moving marketplace. It can now do so thanks in part to advances in connectivity combined with the ability to leverage the potential offered by on demand computing services and a digital media infrastructure solution from IBM.

On Demand Business Benefits

- Virtually unlimited rendering scalability on demand, helping to enhance rendering processes and production
- Reduced production and systems management expenses
- The ability to link in-house rendering resources with remote animation capacity
- The protection of valuable intellectual property with a security-rich environment
- The opportunity to mitigate technology obsolescence and business risk by avoiding having to invest in a costly capital infrastructure

"With IBM, we have the highest quality infrastructure that enables us to add professionalism and reliability to our services. We're using world-class technology from the largest computer infrastructure vendor in the world."

– Ruben Perez, Executive Producer, RenderRocket

The company is employing a render farm that taps into the IBM Deep Computing Capacity on Demand center – a supercomputing center offering a vast amount of capacity and an unmatched investment in on demand computing. Combining its unique Web-accessible interface and extensive experience, RenderRocket is offering its clients a scalable, remote rendering solution that is designed by animators for animators to integrate with customers' production pipelines.

Offering power on demand

When the company approached IBM in early 2005, it was looking for a large amount of processing power to launch its solution. After considering options such as purchasing the technology in-house, and building out a complex infrastructure, RenderRocket decided to secure IBM.

"There was really no one else who could manage this at the levels we needed," says Ruben Perez, Executive Producer, RenderRocket. "IBM's ability to offer computing power on demand is critical to our business."

RenderRocket began its search by finding the right people at IBM for its solution. "The process was very efficient and rewarding ultimately," says Perez. "The IBM Digital Media team displayed a willingness to work with us from the beginning and to make our solution come to life, understanding our needs and offering us a creative, cost-effective way to complement our business." Perez continues, "Everyone I've talked with across the company has been very willing to offer assistance and creative solutions when necessary."

Before engaging IBM, the company was initially running a locally based prototype. "Attempting to integrate our prototype with IBM was a learning experience for both sides," explains Perez. "But it took only about one month to convert our entire operation to IBM Deep Computing Capacity on Demand."

Combining animation strength with state-of-the-art servers

With IBM, RenderRocket did not have to invest in a costly capital infrastructure or systems management teams. In turn, its customers can avoid similar expenses and concerns by leveraging the distinctive interface it had already developed. Says Perez, "One of the things allowing us to offer a successful service is that we are able to put together a solution focusing on our strengths in animation and rendering, while IBM handles the core component of the technology. This enables a company like ours to do so without having to invest millions of dollars, which therefore reduces our business risk."

The Poughkeepsie, New York-based supercomputing center offers RenderRocket access to on demand capacity with state-of-the-art rendering servers. In turn, RenderRocket's customers can scale up to as much processing power as they

need, for as long as they need it – whether it's four processors or a thousand, for one week or several months.

RenderRocket's self-service render farm powered by the IBM Deep Computing Capacity on Demand center offers the company unsurpassed capabilities to provide a scalable, highly secure and resilient digital media infrastructure and operating environment, as well as:

- *Extensive experience hosting business-critical workloads – helping to avoid acquisition, deployment, upgrade and maintenance cycles, while mitigating technology obsolescence*
- *Virtually unlimited rendering scalability when needed – enabling more creativity and better image quality through rendering iterations, and accelerating production schedules*
- *Rapid access to temporary rendering capacity to meet peak demands – allowing fast deployments while avoiding costly investments*
- *A security-rich, confidential environment based on industry-leading 128-bit encryption over SSL – helping to protect intellectual property and integrating with digital asset management systems*

Notes Perez, "IBM offers us the best capacity and the best growth path, enabling our company to grow as fast as we need to. We can now offer our services to mid-sized animation firms who are, in turn, looking to scale quickly. And we can do this after only a few days and a phone call to IBM." As a result, RenderRocket's solution can enable smaller studios with smaller budgets to compete more effectively while producing high-quality animation faster.

Behind the scenes, the digital media solution consists of IBM @server xSeries systems with dual 3.06GHz Intel® Xeon™ processors, 3GB RAM, Ultra320 SCSI controllers and dual gigabit Ethernet running Linux or Windows. With 24x7 monitoring of critical components, the company's data center features more than a terabyte of secure storage as well as central switch redundancy, dual power feed and UPS/battery backup.

Says Perez, "With IBM, we have the highest quality infrastructure that enables us to add professionalism and reliability to our services. We're using world-class technology from the largest computer infrastructure vendor in the world."

Advanced online render management tools

Easily accessible 24x7 via a Web browser, RenderRocket's interface – aptly titled "Mission Control" – equips users with full control over file transfers, scene analysis, job submission and render monitoring. The company not only provides a user-friendly interface with pull-down menus to select such things as rendering software, scenes and frames, but it also offers appropriate software licensing. With RenderRocket's interactive, self-service solution, customers can actually see

Key Components

Servers

- IBM @server xSeries systems

Services

- IBM Deep Computing Capacity on Demand center

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scenes as they're being rendered, and can even select thumbnails. It also offers the ability to change scenes dynamically, saving them the time and effort involved in uploading separate scene files that can be hundreds of megabytes.

With advanced render management tools based on industry-leading, popular rendering software such as Maya and Turtle, the solution from IBM is enabling RenderRocket's customers to:

- *Reduce or eliminate costly hardware purchases or rentals*
- *Avoid having to manage customer support, insufficient floor space, network configuration and installation, and software licensing*
- *Manage rendering expenses and future requirements with cost- and resource-estimating tools*
- *Pay only for render time and power utilized*
- *Enhance rendering processes to boost production – rendering scenes in the time it takes to render a single frame, for example, which often equates into reducing processing time by nearly 95 percent*
- *Extend and link existing in-house rendering resources with a remote animation pipeline*
- *Focus on creating animation, instead of managing rendering hardware*

The company also offers imaginative prepaid cards – similar to those used by long-distance phone companies – with which customers can secure render time credits in advance. Using RenderRocket, customers are charged per actual CPU processing hour, rather than the overall cost of running the hardware; this helps reduce production costs and enhance ROI.

Scaling up to meet additional needs, on demand

RenderRocket ran statistics from a Los Angeles-based broadcast animation studio, finding that it was using its rendering power only 10 percent of the time, but paying for 100 percent of hardware costs. Using the solution from RenderRocket, the animation company is now only paying from 5 to 10 percent of actual usage.

Only three months after launching its services, RenderRocket is already scaling up further, quadrupling its server capacity to meet the demands of a customer that is developing a major film studio's intro logo. The customer is tapping into the RenderRocket solution for its final rendering processes. Says Perez, "We can deliver these services on demand thanks to our solution with IBM and its vast professional resources and knowledge. If you can tap into that, you can build anything."

For more information

To learn more about IBM Digital Media Solutions, contact your IBM representative or visit: **ibm.com**/solutions/digitalmedia

To find out more about RenderRocket, go to: www.RenderRocket.com

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