

# Online Gaming Solutions



**Level (3)**<sup>®</sup>  
COMMUNICATIONS



## Deliver the Highest Quality Game Performance and Downloads

Gamers don't follow the rules of life as we know it. In one hour, they can launch an assault on their deadliest enemies, romance a goddess and narrowly escape a fiery inferno. There's no need to eat or sleep; there's just enough time to decide the next move. In virtual worlds that move as fast as these, subtle changes in speed or quality can make or break your die-hard audience's gaming experience, and make or break your business.

With experts who have been in the industry since gaming went online, and one of the fastest and most connected global IP networks in existence, we can help you deliver the highest level of online gaming performance, the most reliable downloads and trailers, and save costs by reaching your worldwide audiences directly.

### **Power Up for a More Profitable Gaming Experience**

To meet your gamers' demands for the highest-quality online performance, you need a platform with the power to overcome many challenges inherent to delivering rich media content over the Internet, such as traffic spikes, large file sizes and gamers hitting your servers from locations all over the world. That's what the Level 3® High Speed IP service and high-performance Content Delivery Network (CDN) platform were architected to do.

Together, they can help you:

- Increase the speed and performance of your games to keep audiences coming back for more.
- Decrease costs of logistics of physical game delivery.
- Effectively market your games via fully playable demos and high-quality streaming trailers.
- Increase the lifespan of your games by efficiently delivering downloadable content.
- Cost-effectively launch new gaming models, including subscription-based games and persistent worlds, indie games designed for niche audiences and mobile-based games.
- Avoid the cost of building out and managing more infrastructure.
- Spend more time designing and developing the best games possible and less time thinking about how you will deliver them online. You can count on our network and team of gaming industry experts to do that for you.

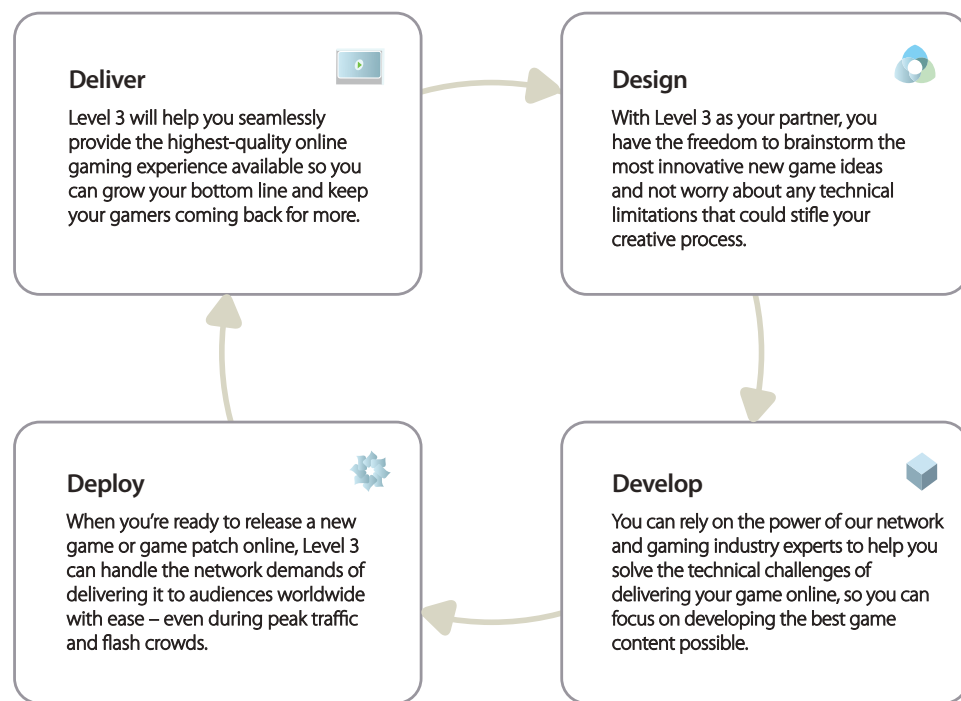




## Industry-Evolving Solutions from Gaming Experts

In 2008, the gaming and digital entertainment industry exceeded Hollywood revenues for the first time in history. This was an exciting milestone for the gaming experts at Level 3 – not just because they are veterans of the industry, but because they still haven't lost their passion for gaming. It's that dedication that brought them to Level 3 to work on the technical challenges of online gaming, and they continue to evolve the industry through Level 3's innovative network solutions for your entire game lifecycle.

### HOW WE SUPPORT YOU FROM DESIGN TO DELIVERY



## Solutions That Drive Online Gaming Quality and Performance

User experience is a key factor in driving the success of your online games, and the perceived performance of your games is often determined by the network that connects your gamers with your servers. As the #1 ranked "most connected" Internet Service Provider (ISP) in the U.S., Europe and Asia, the Level 3 Network offers the shortest path from your gamers to your game servers. Level 3 is positioned to help you maximize your online game performance and deliver the highest-quality user experience available.

## DELIVER YOUR GAMES OVER THE MOST-CONNECTED NETWORK

When you leverage the extensive network reach, speed and connectivity of the Level 3 High Speed IP service, you get a network designed to meet the needs of the largest consumers of Internet bandwidth today.

- Fewest hops between any two locations
- Bandwidth deployed in increments up to 100 Gbps
- Overbuilt to allow for rapid growth and augmented for high capacity at all layers
- Clear difference in the performance of online games designed for low-latency networks.

## Solutions for the Fastest, Highest-Quality Software Delivery

When your gamers are ready to play, they won't wait around for slow downloads – whether it's patches or full games. Your ability to deliver a high-quality download experience is what keeps them coming back to battle in your persistent worlds, and buy their favorite games from you online. The Level 3® Electronic Software Delivery service, which leverages our highly scalable CDN, is designed to provide the instant gratification to your gamers' demand.

Using over 35 strategically placed caching locations and patented Footprint® technology, our CDN has the reach, speed and flexible features to:

- Efficiently deliver high-quality demos and new releases to gamers worldwide, even during peak traffic or flash crowds.
- Reduce the need to bundle peer-to-peer software with your game installers, and take the burden off your own network.
- Customize the Electronic Software Delivery solution with multiple security features, geo-targeted delivery, traffic management services and storage.
- Take advantage of our price-to-performance ratio.

*"Level 3 has proven that it can deliver game patch updates without issue during peak traffic times of extremely large flash crowds."*

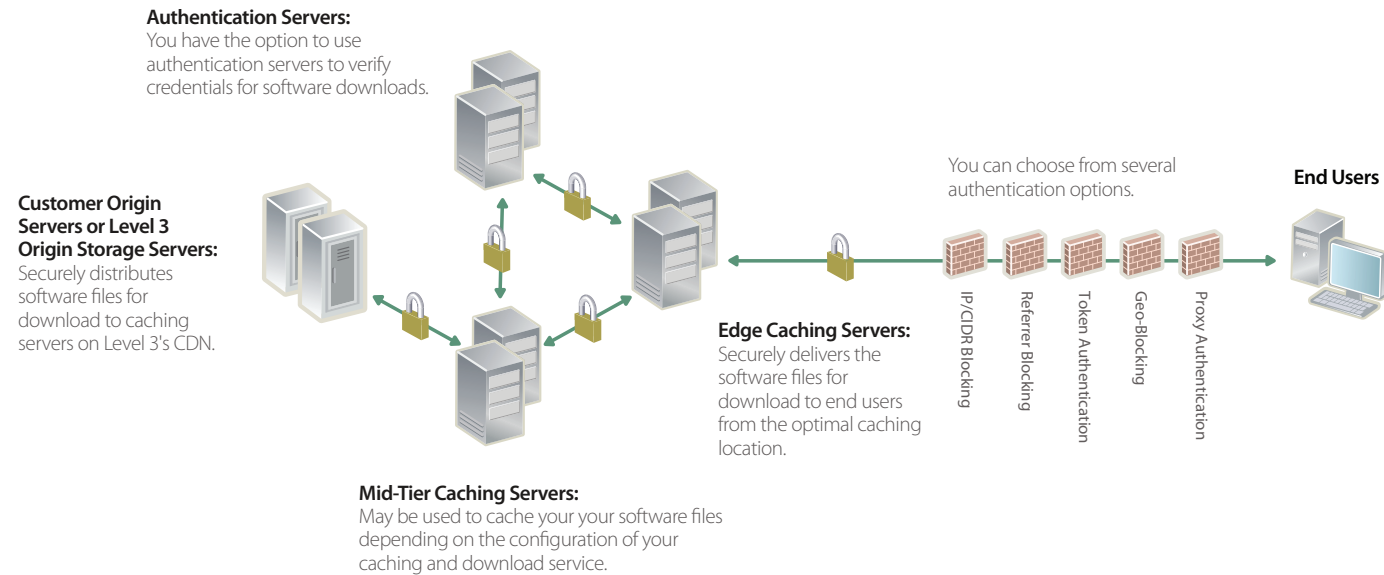
– Ole Schreiner, VP of Operations, Funcom

*Level 3 is the #1 ranked "most connected" ISP in the U.S., Europe and Asia.*

– Renesys



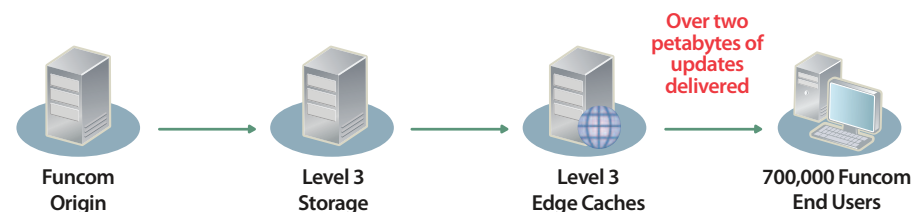
## How Level 3 Electronic Software Delivery Works



Your large file software downloads can securely travel from your own origin server or a Level 3<sup>SM</sup> Origin Storage location to a dedicated pool of secure, worldwide Tier 1 caching servers and caching edge servers. The files are then delivered to your worldwide users from the closest secure caching location.

You can choose from a number of user authentication options to ensure only authorized users can access your protected content. If you don't need the security features, you can configure your electronic software delivery service without encrypted delivery.

### Funcom Case Study: MMOG Release of "Age of Conan"



**The challenge:** When Funcom needed to deliver a massively multiplayer online game (MMOG) release of "Age of Conan" to a potentially large online audience, they turned to Level 3 to create a highly scaled, global platform for online gaming distribution.

**The Level 3 solution:** Level 3 drew on experience with a large-scale event delivery to establish a high-performance architecture in both North America and Europe. Maintaining a close customer relationship, we prepared for and fully supported the unpredictable network impact.

**The result:** We delivered over two petabytes of game patch updates to 700,000 gamers in two months. The launch was crowned the "smoothest MMOG release in history."

## Multimedia Marketing Solutions for Epic Game Releases and Events

There's no better way to market your new releases and industry events than letting your gamers see all the epic, live action for themselves via broadcast-quality streaming video. The challenge is making sure your website and network have enough bandwidth to support these large files, and ensure live videos will play smoothly during peak traffic periods. With the Level 3<sup>®</sup> Wholesale Delivery service and the Level 3<sup>SM</sup> Streaming platform, online audiences of all sizes can get close enough to taste the action without slowing down your site or interrupting your video performance.

### BROADCAST-QUALITY STREAMING FROM CREATION TO CONSUMPTION

Our Streaming platform is designed to support the next generation of streaming for all leading standard-definition (SD) and high-definition (HD) media formats. Combined with Level 3<sup>SM</sup> Vyx<sup>®</sup> video broadcast backhaul services, Level 3 is your single-source transport provider for broadcast-quality streaming videos from creation to consumption.

- On-Demand Video Trailers – We support Microsoft<sup>®</sup> Windows Media<sup>®</sup>, Adobe<sup>®</sup> Flash<sup>®</sup> and Move Networks technologies for delivery of your fast-moving, high-definition game trailers.
- Live Streaming Videos – We provide worldwide, live streaming coverage of events, or simulcast content for gaming conferences, competitions and events.

## Enter a New Age of Online Game Performance and Delivery Today

The world of online gaming is advancing every day. By teaming with Level 3 for your online game performance, marketing and software delivery solutions, you have a powerful provider that can keep you a step ahead in delivering the highest-quality online experience for your devoted gamers, and reliably reaching more audiences directly worldwide. It's time to confidently enter the new age of online gaming with Level 3 at your side.

For more information about Level 3 Online Gaming solutions, please call us today at 1.877.2LEVEL3, email us at: [info@level3.com](mailto:info@level3.com) or visit: [www.level3.com](http://www.level3.com).

*Level 3 has carried coverage of some of the largest game developers' conferences, including the September 2009 Austin GDC.*



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