

POWER
YOUR PLAY



Level (3)
COMMUNICATIONS

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November 17th 2014, Luxembourg

Powering Gameplay Globally

Level 3 supports some of the largest Gaming brands to deliver the best gaming experience to millions of fans around the world



At Level 3 we:

- Own and operate CDN servers and the global network that connects them.
- House and interconnect game development platforms and game server networks.
- Provide solutions to deliver content to consumers and online gaming.
- Our Gaming partners/clients/customers/community value our track record in network performance, willingness to be flexible and knowledge of their regions.

Level 3 is about **Powering Your Play Globally**, supporting cost effective expansion to new markets, underpinning critical gaming events and keeping operations safe and secure.

Our Gaming Sector Customers include



Gaming Industry Trends + Drivers

Digital Industry Trends

9%

Predicted yearly revenue growth through 2013

Global Growth

- Increase in accessibility + availability of technology is driving demand
- Brazil, Russia, India + China are the fastest growth markets
- Developers are taking notice

\$3.33B

2012 Digital Game sales in US and Europe



Business Model shift, more high-quality Free To Play games, monetising micro-transactions



Mobile + Online formats to fuel market

Digital Distribution Continues to Rise

- \$1.07B Physical Software
- \$399M Used/Rentals
- \$1.4B Digital Content

2012 Q3 US Consumer Spend



Console Gaming on a decline (Down 3% from 2011)

- Deliver the best In-Gaming experience
 - Gamers are demanding. No audience expects more from content delivery providers in terms of speed and quality
- Fast On-Boarding and Updating
 - Content Delivery Network scaled to take the strain of peak traffic today, with room to grow for tomorrow
- Keep your Game Platform Live and Secure
 - What you can't see can hurt you – Integrated security solutions to protect game play, prevent disruption to game servers and protect your business and customer data.
- Fast Expansion into new markets
 - Cost-effective expansion can be risky and difficult, because predicting game popularity and traffic patterns in a new region can be challenging – It's easier with a global partner

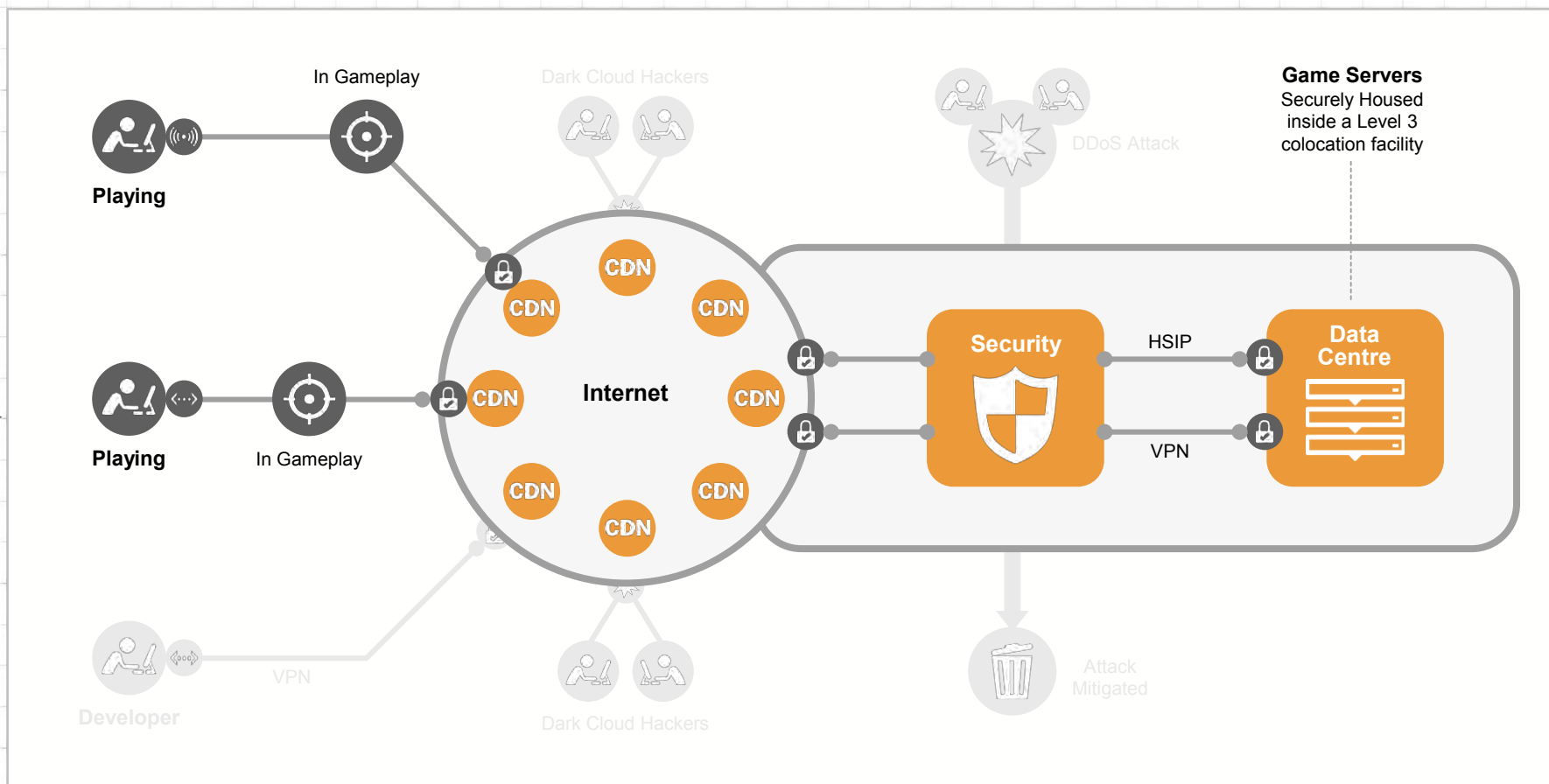
Delivering the Best In-Gaming Experience

Gamers are demanding. No audience expects more from content delivery providers in terms of speed and quality.



Business Benefits

- Consistently great gameplay experience
- Gamer retention, growth and increased revenue
- Cost effectiveness

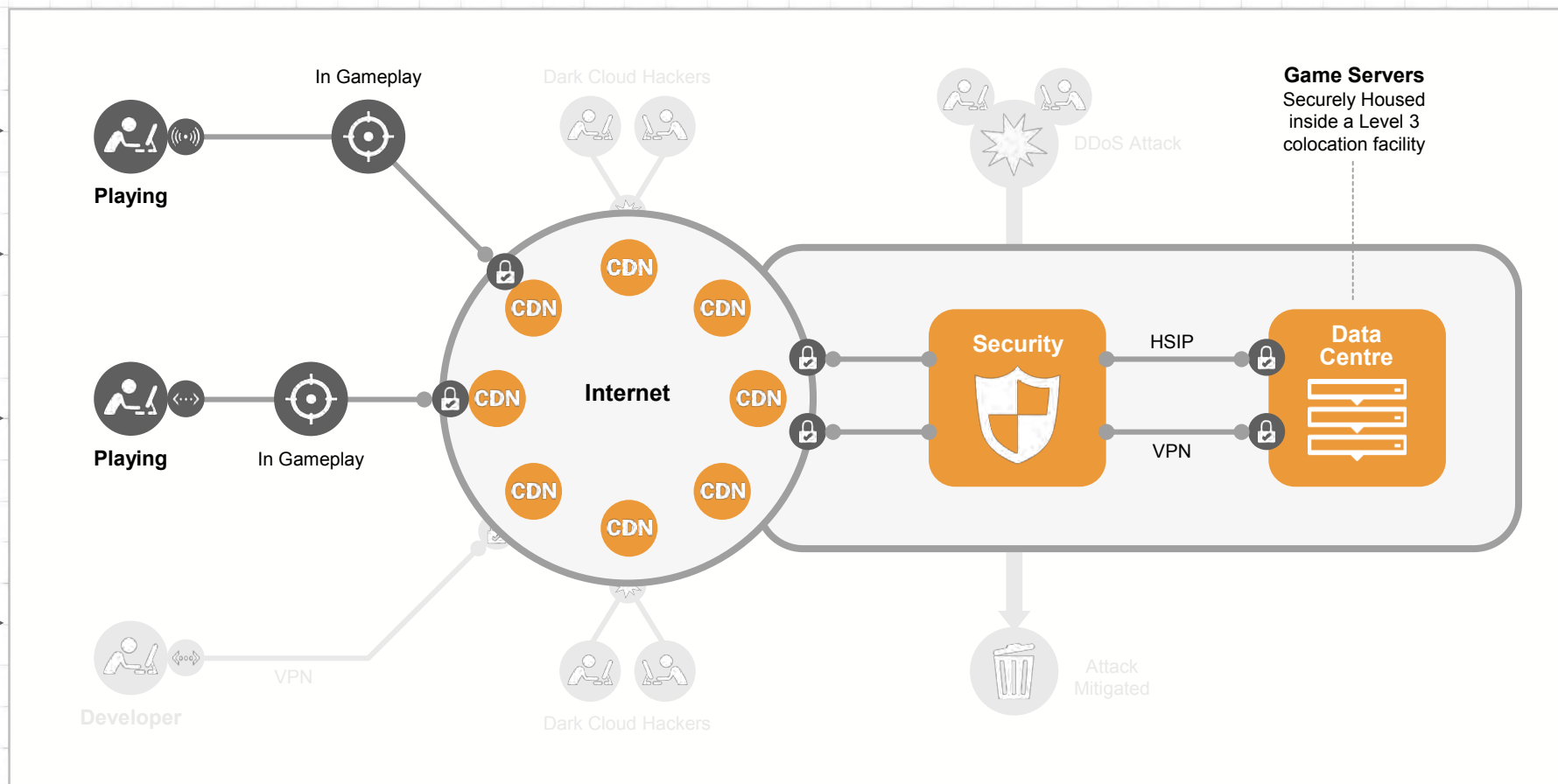


Delivering the Best In-Gaming Experience

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- Gigabit IP links minimise round trip delays
- Scaled for speed and massive throughput
- Fewer than 2 network hops on average from Gamer to Server for a consistently great gameplay experience
- Content Delivery Network speed combined with Site Transformer web page optimisation improves website availability and responsiveness

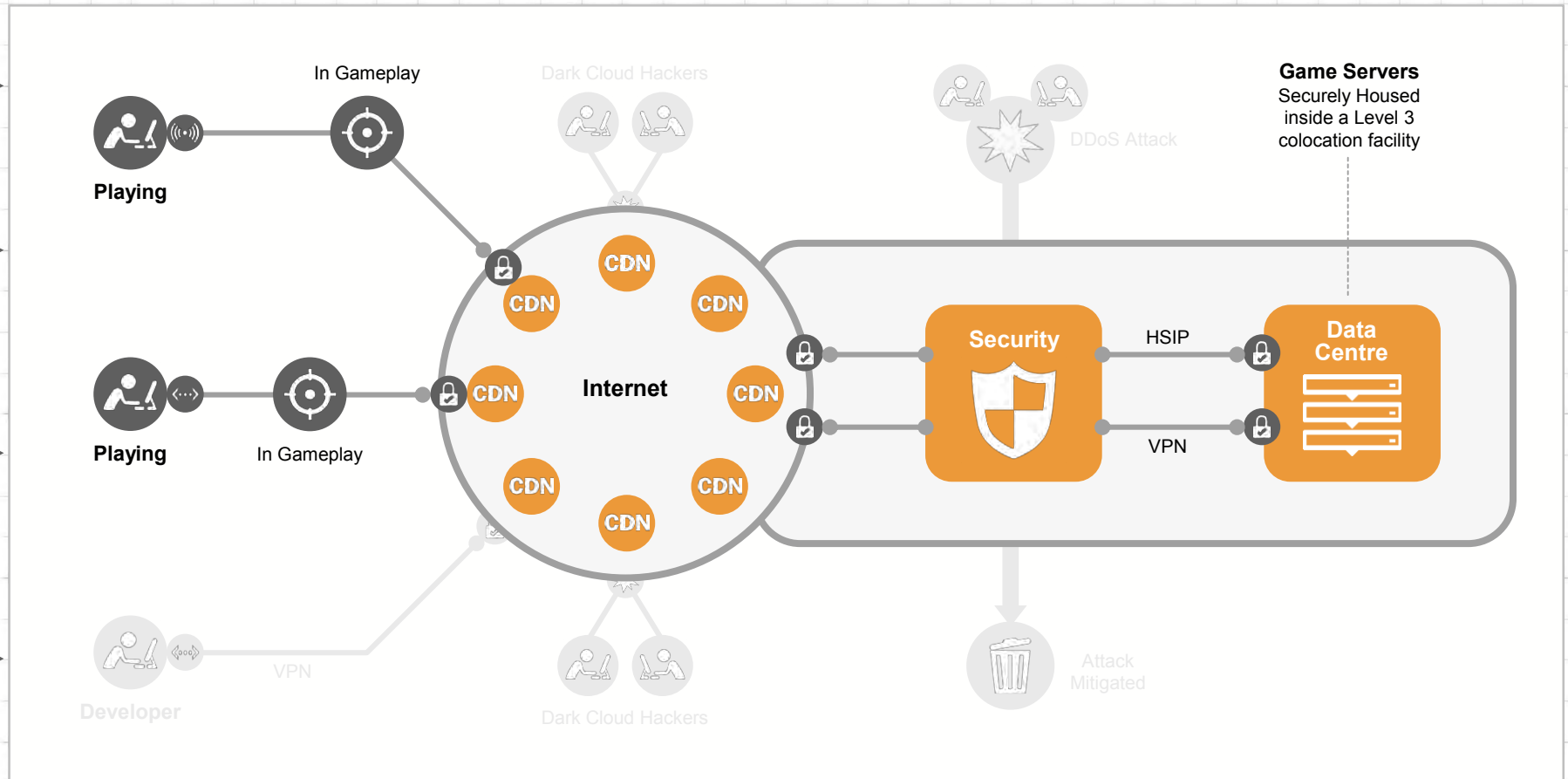


Delivering the Best In-Gaming Experience

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- Bandwidth aggregation keeps traffic costs under control
- High Speed Internet (HSIP) means high bandwidth uncontested access to Game Servers
- Website Acceleration for high performing Game sites and online stores
- When it comes to latency, location matters. Our datacenters connect straight into the network.

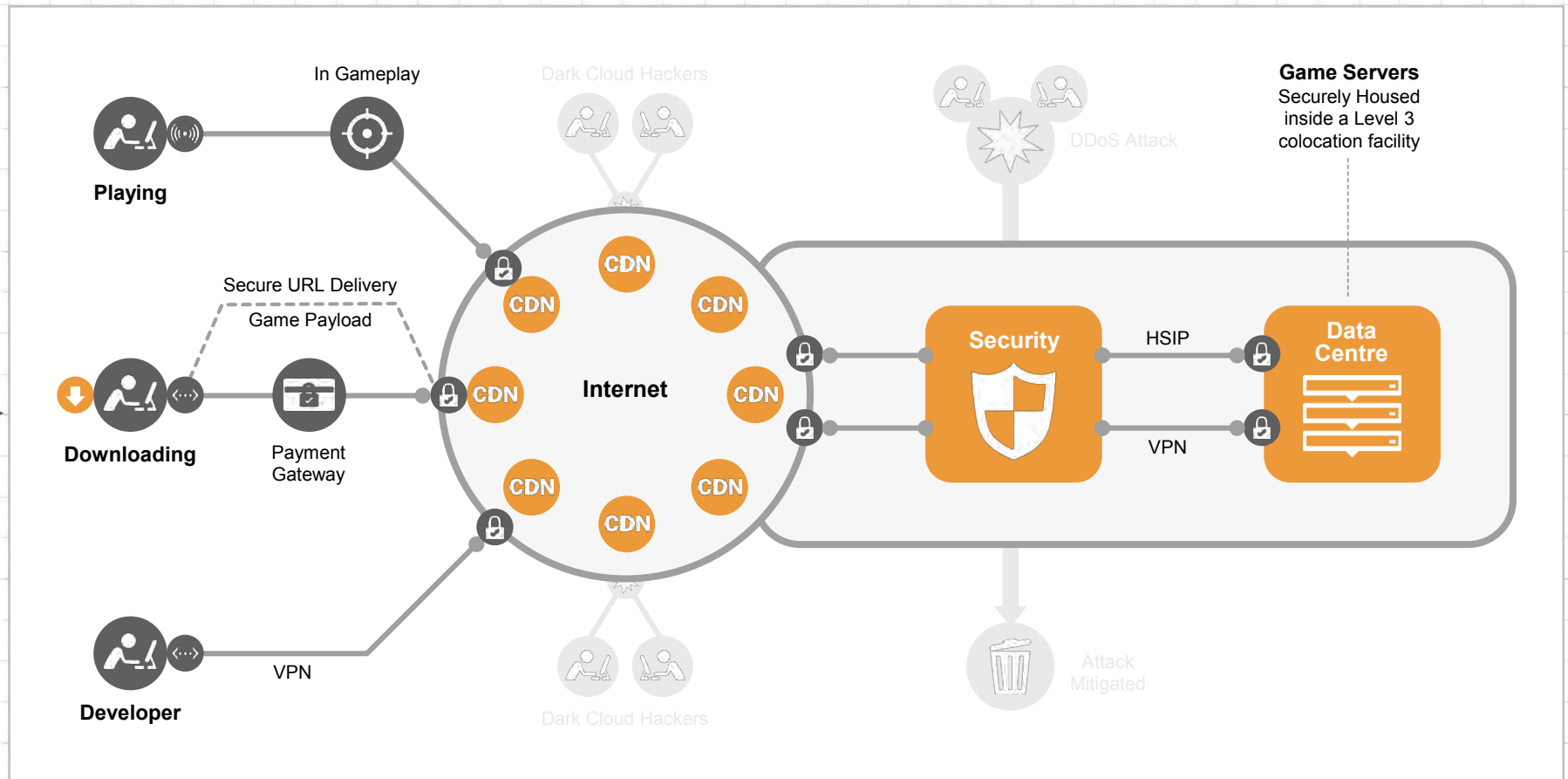


Fast, Seamless Gamer On-Boarding and Updating

Content Delivery Network scaled to take the strain of peak traffic today, with room to grow for tomorrow.




Business Benefits

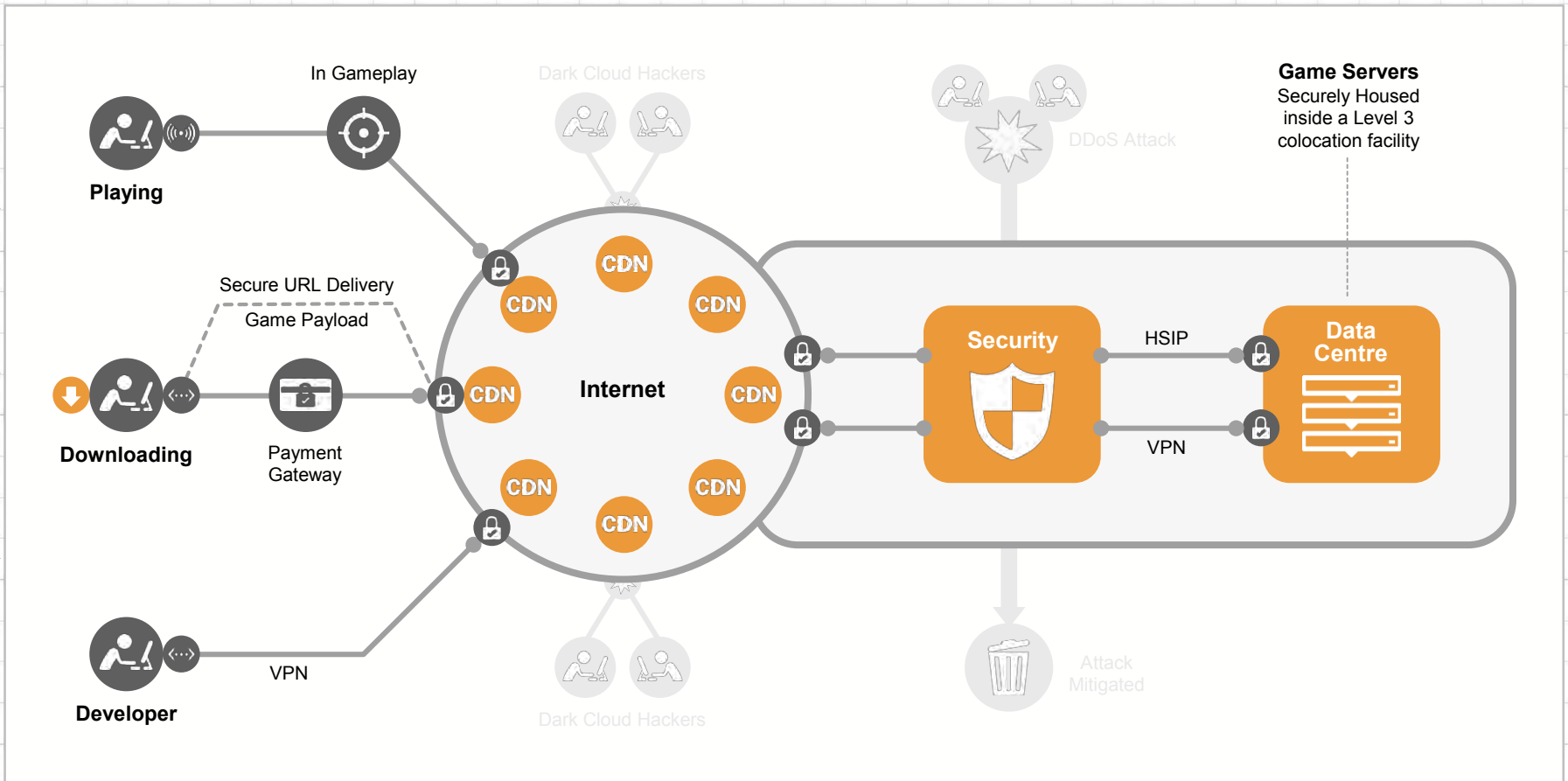
- Consistently great experience for new and existing Gamers
- Cost effective secure delivery of patches and updates



Fast, Seamless Gamer On-Boarding and Updating

Content Delivery Network scaled to take the strain of peak traffic today, with room to grow for tomorrow.

-  Game files and patches are uploaded to your Origin Server
-  Copies of Game files are housed on Level 3's CDN, enabling fast access from anywhere in the world
-  Game files are served to Gamers from the optimal Caching Server

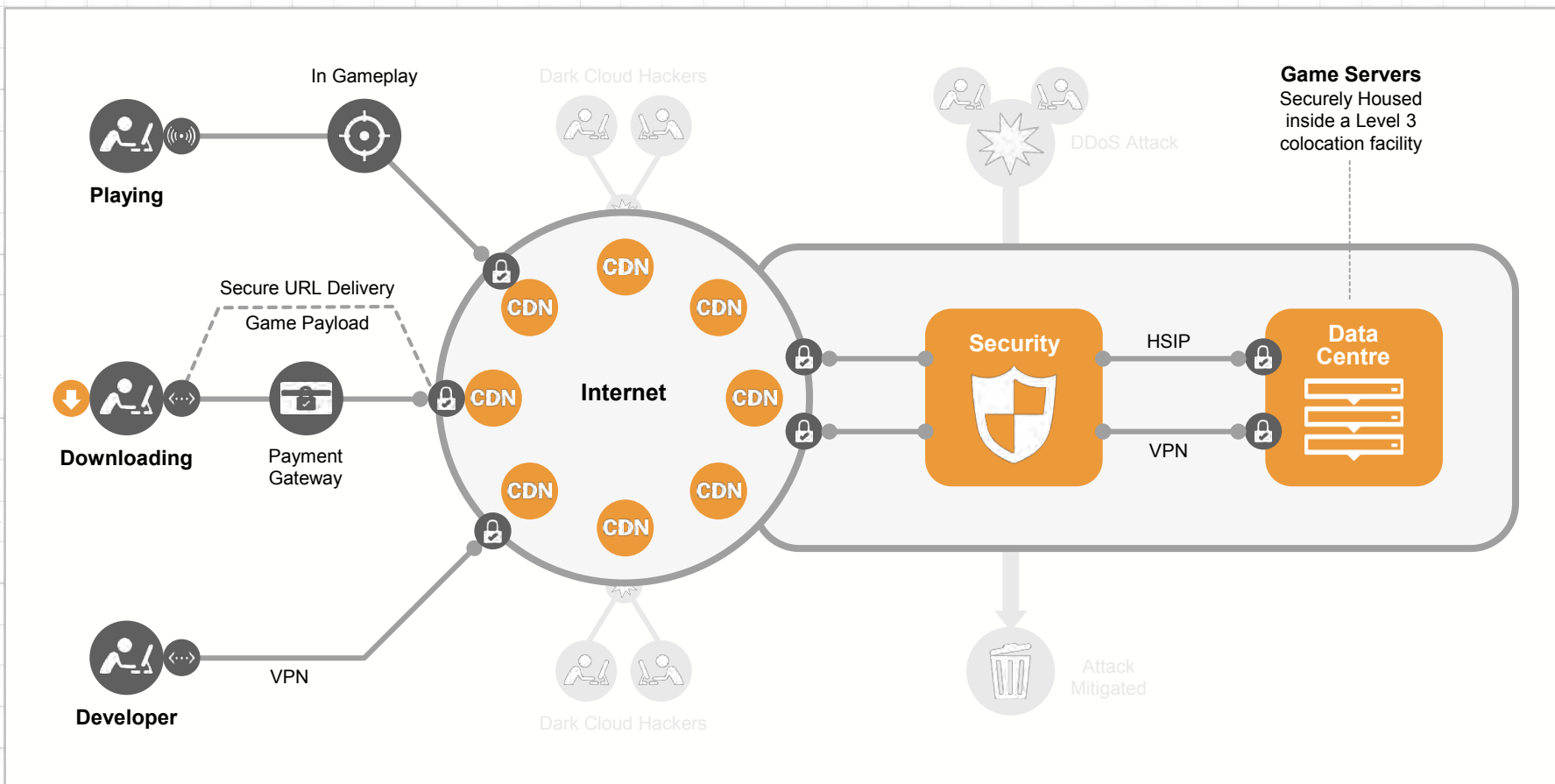


Fast, Seamless Gamer On-Boarding and Updating

Content Delivery Network scaled to take the strain of peak traffic today, with room to grow for tomorrow.



- Peak surges greater than 500Gigabytes can be handled with ease
- CDN offload protects Game Server performance
- Bandwidth Optimiser aggregates traffic costs for cost effective billing

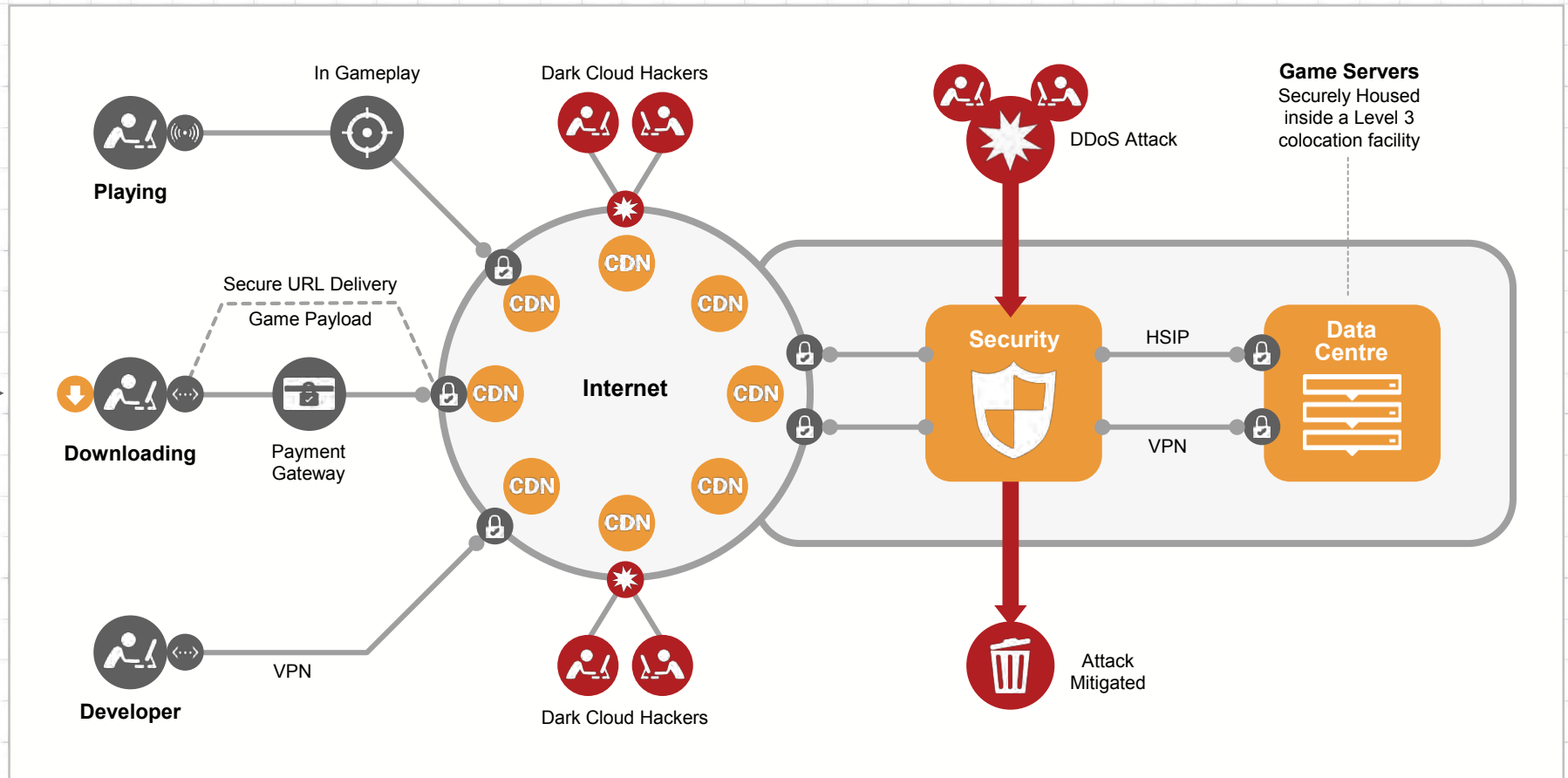


Keeping Your Gaming Platform Live and Secure

What you can't see can hurt you – Integrated security solutions to protect game play, prevent disruption to game servers and protect your business and customer data.

Business Benefits

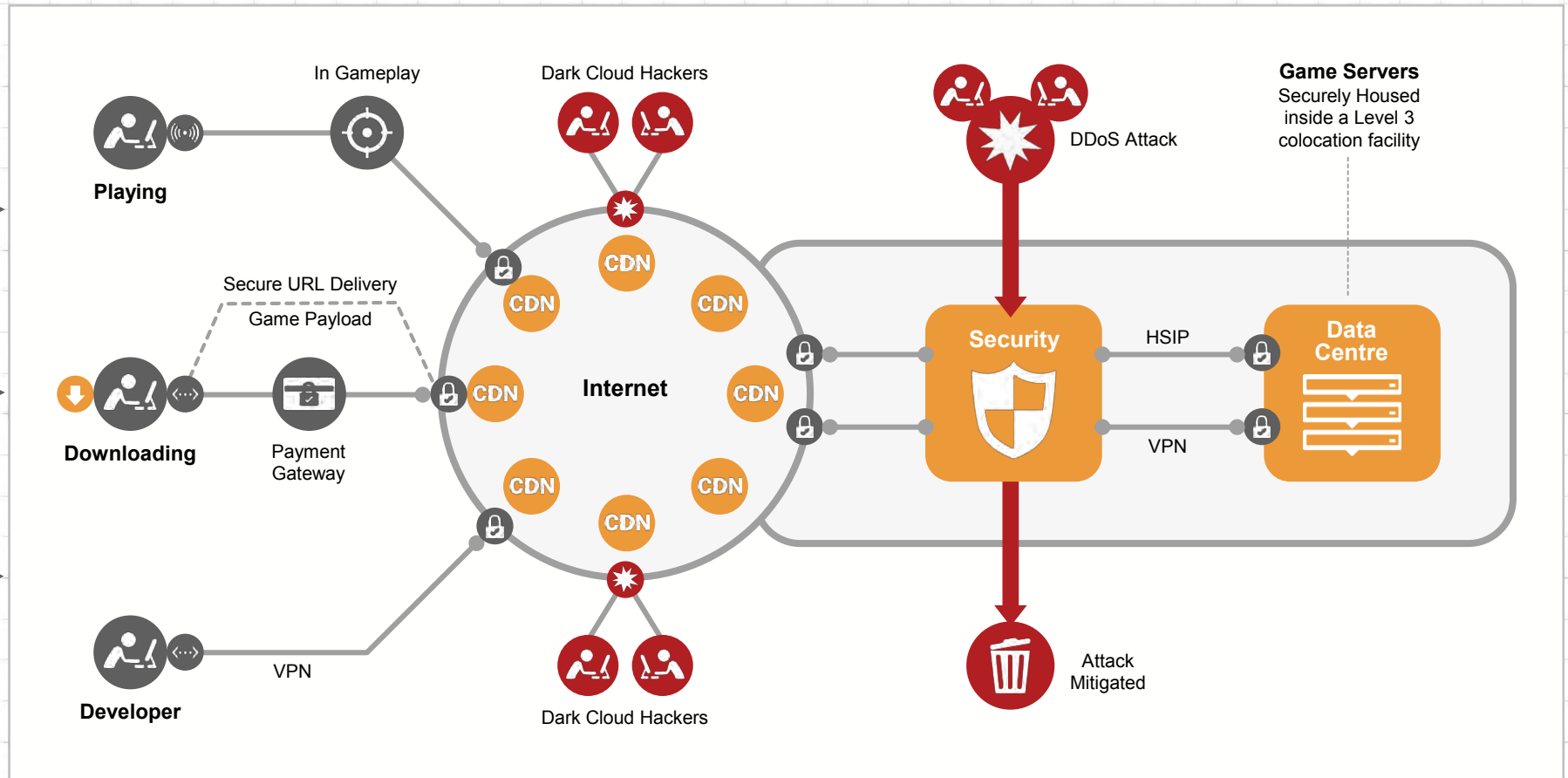
- Maintains the user gaming experience
- Prevents downtime which protects revenue and reputation
- Keeps sensitive business and customer data safe and secure



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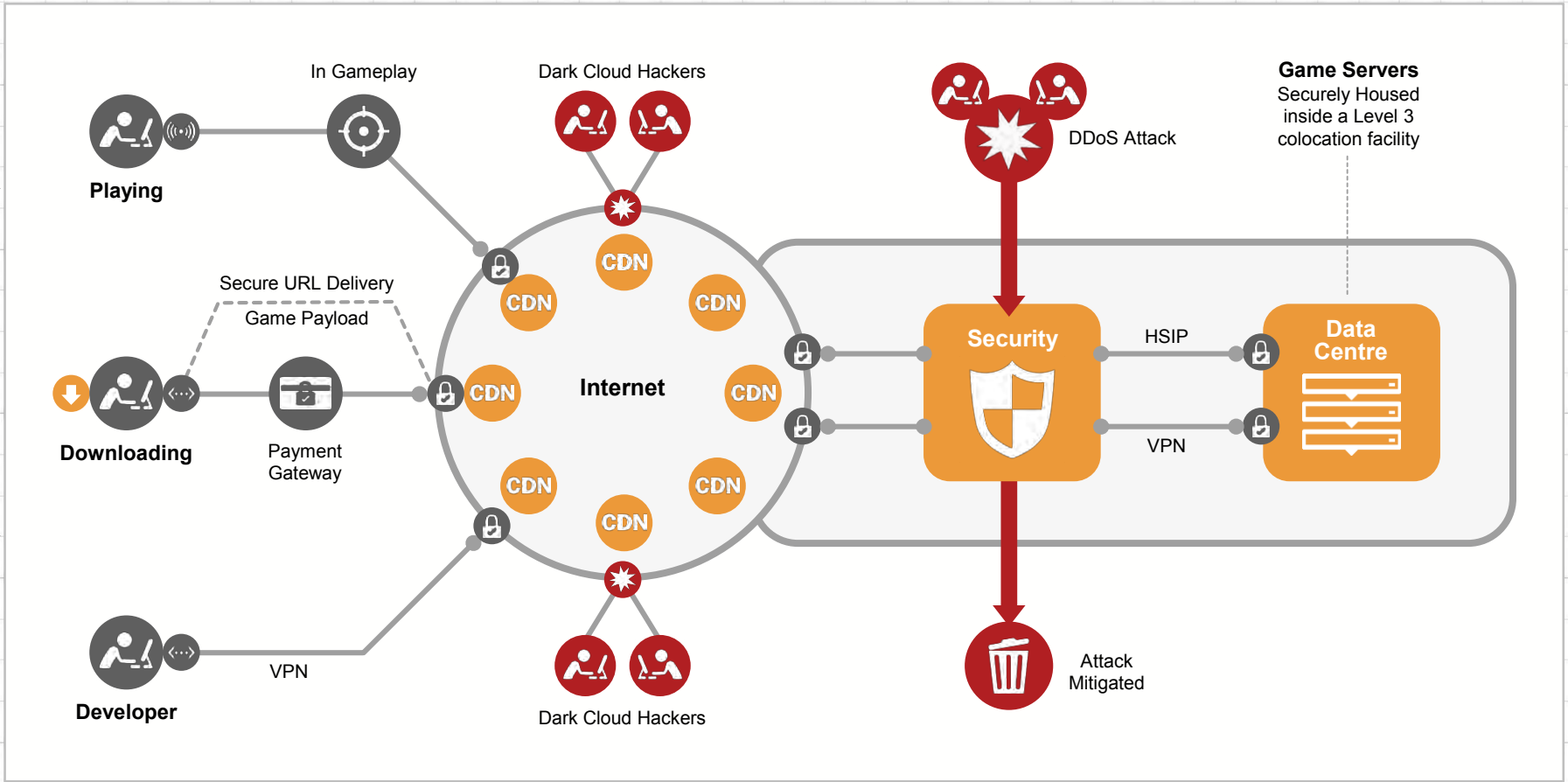
- Secure delivery of Game payloads for download to Gamers from the optimal **Edge Caching Server**
- Secure distribution of Game files from **Origin Server** to secure caching servers on **Level 3 CDN**
- Authentication Servers** can be deployed as an option to verify credentials for software downloads



Keeping Your Gaming Platform Live and Secure

What you can't see can hurt you – Integrated security solutions to protect game play, prevent disruption to game servers and protect your business and customer data.

- Best in class **DDoS protection** deflects and absorbs massive scale online attacks
- Level 3 MSS** tracks and responds to multiple types of cyber threats simultaneously, including DDoS, malware and hacking activity.
- IT infrastructure protected within secure **Colocation Facilities**



Supporting Expansion Into a New Market Region

Cost-effective expansion can be risky and difficult, because predicting game popularity and traffic patterns in a new region can be challenging – It's easier with a global partner.

Business Benefits

- Ease and speed of deployment into a new region
- Cost effectively tap into growth whilst keeping investments low
- Enabling growth, mitigating risk.



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Global connectivity enables new audiences to be reached



Colocation facilities in-region to host your servers



Regional and local expertise makes set up easier and faster



Flexible commercial models to balance risk and costs



CDN offload protects Game Server performance



Our Customers say...



We've built the fastest, lowest latency interactive network in the world, and plan to expand capacity to reach even more gamers using Level 3's incredible array of IP services.

David Perry | CEO of Gaikai



Level 3 has supported our tremendous growth in Russia as well as our recent launch into North America and Europe, so we're confident in their ability to help us meet demand, regardless of where or how much we grow.

Victor Kislyi | CEO, Wargaming.net



With Level 3, we can deliver top quality and reliability for our customers whilst realising significant cost efficiency for our own business.

Bob McCulloch | CEO of Virtue Fusion (Alderney) Ltd.



We have peace of mind knowing that we have reliable access to the bandwidth we need, backed by Level 3's extensive fiber optic network, with room to grow in the future.

Soo Min Park | Vice President at Nexon America



Level 3's caching and storage services allow us to focus on creating games that people around the world want to play, without worrying about meeting bandwidth demand or adding infrastructure to accommodate growth.

Jens Begemann | founder and CEO of Wooga



Tangible value

- **Power your play globally:** Ultra fast low-latency network for great gameplay, with room to grow
- **Seamless on-boarding and Game updates:** CDN capability to support massive traffic peaks and flash crowds
- **Seamless live events:** Seamless delivery of game launches, tapping into two decades of live online video streaming
- **Secure your platform:** Secure delivery of game payloads and best in class mitigation against DDoS attack
- **Cost-effectively enter new markets:** fast, easy entry to new markets, scale as you grow

Key Level 3 Solutions:

- **Global fibre IP network**, most connected for fewer hops
- **Global Content Delivery Network**, scaled for massive traffic peaks, and with room to grow
- **Game Server** hosting and **Site Transformer** for fast, responsive web services
- **Bandwidth Optimiser** to aggregate bandwidth charges for cost effective billing
- **Live events** support services, live streaming capabilities
- **Integrated cyber-security** services including Unified Threat Management