IDC MarketScape: Worldwide Commercial CDN 2019 Vendor Assessment
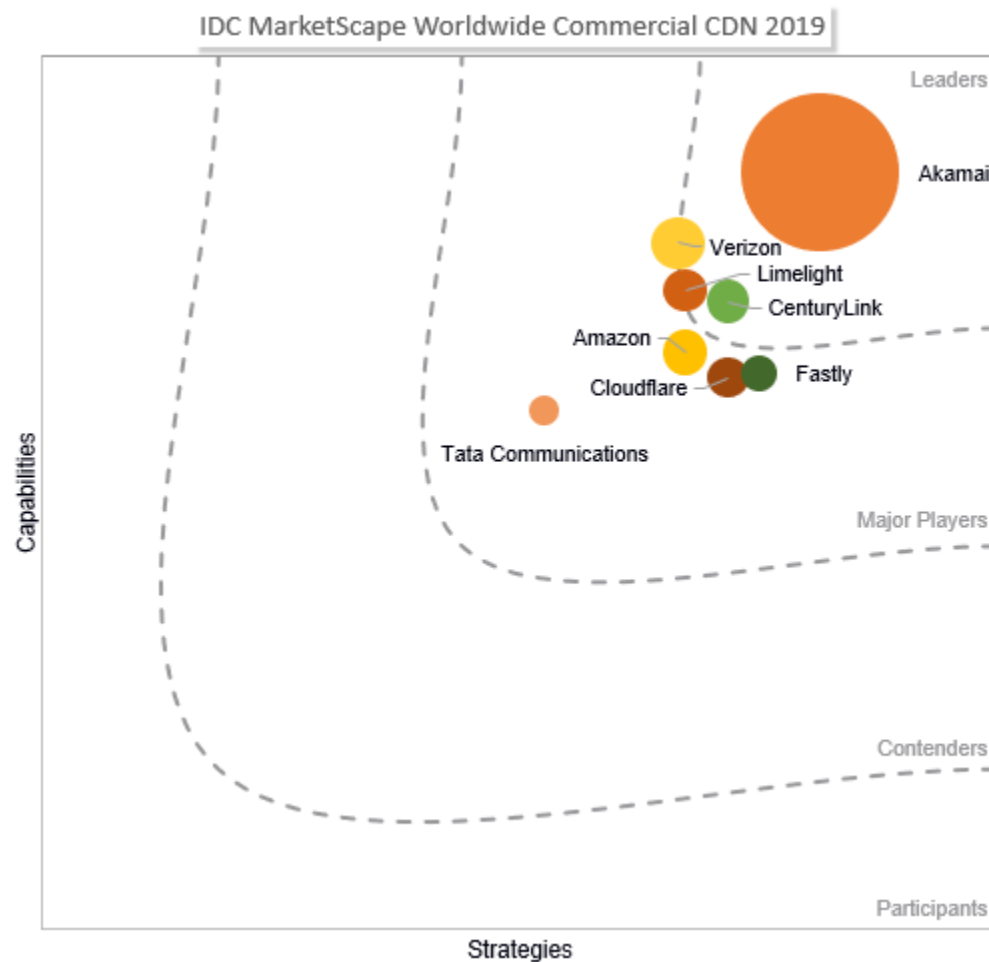
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THIS IDC MARKETSCAPE EXCERPT FEATURES LIMELIGHT

IDC MARKETSCAPE FIGURE

FIGURE 1

IDC MarketScape Worldwide Commercial CDN Vendor Assessment

Source: IDC, 2019

Please see the Appendix for detailed methodology, market definition, and scoring criteria.

IN THIS EXCERPT

The content for this excerpt was taken directly from IDC MarketScape: Worldwide Commercial CDN 2019 Vendor Assessment (Doc # US44842119). All or parts of the following sections are included in this excerpt: IDC Opinion, IDC MarketScape Vendor Inclusion Criteria, Essential Guidance, Vendor Summary Profile, Appendix and Learn More. Also included is Figure 1.

IDC OPINION

This IDC study utilizes the IDC MarketScape methodology to evaluate commercial content delivery network (CDN) providers. IDC identified eight providers by scale and scope that provide CDN services across the globe. The intent of this study is to provide a comparative view of these CDN providers in terms of their capabilities to offer CDN services and strategies to grow and innovate in this evolving marketplace.

The commercial CDN market is a mature market that carries a substantial portion of the world's internet traffic. According to the 2018 Cisco VNI report, CDNs will carry 72% of internet traffic by 2022, up from 56% in 2017. In *Worldwide Content Delivery Network Services Forecast, 2019-2023* (IDC #US44057419, May 2019), IDC projects this market to reach $13 billion by 2023 at a five-year CAGR of 17.3%. CDNs have become an essential tool to handle the demands created by the massive amount of web content, live high-definition (HD) video, and large downloads on the internet today. Enterprises turn to commercial CDNs for handling content delivery pertaining to four broad segments:

- **OTT video:** This is the largest segment delivering on-demand and live video streams.
- **Web, email, and data:** This segment manages the delivery of static and dynamic web pages as well as email and data.
- **Online gaming:** The primary focus is on cloud-hosted multiplayer games.
- **File sharing:** This includes over-the-air updates and IoT content.

While CDN traffic is expected to grow at an estimate of 35% CAGR for next five years, revenue growth, however, is challenged with price erosion and move by major content providers to build private CDNs. Market developments such as continued growth of OTT/real-time video and IoT are driving higher demand for performance and low latency. The commercial CDN market is evolving with the advent of a new breed of competitors that capitalize on emerging technologies such as virtualization, DevOps, and peer to peer (P2P) along with simplified pricing models to compete against established legacy players. Virtualization is ushering in a new breed of software-dominant players.

Content providers especially hyperscalers are setting up their own private CDNs to lessen dependence on commercial CDN providers. This is happening against a backdrop of accelerated demand for CDNs to distribute real-time video, handle increasing number of static and dynamic web transactions, shift to online multiplayer gaming, and proliferation of Internet of Things (IoT) devices. CDN providers also face new challenges related to transformation of the edge as an emerging hub for distribution of content and control center for global ecommerce.

CDN security services are emerging as an important revenue driver for CDN providers. Akamai, for example, has seen significant growth in its security services, increasing more than 30% annually for the past three years. Other players are intensifying effort to add more security features in their offers.

This research helps uncover the ingredients that drive growth and differentiation in this marketplace. Enterprises will be better informed in their decision to deploy CDN services and selection of CDN providers. The key selection criteria to be explored in this research focus on current capabilities and future strategies.

This IDC MarketScape provides an overview of strengths and challenges of these eight providers in providing commercial CDN services. This study also captures some key takeaways that are beneficial to all ecosystem players, technology providers, service providers, and enterprises.

The key takeaways from this IDC MarketScape include:

- All global CDN providers are eyeing expansion in the Asia/Pacific region due to huge pent-up desire for video streaming and online gaming.
- China is a challenging market to serve due to regulatory issues. Partnership with local providers is key for ability to serve the market.
- The midmarket and small business are highly sensitive to price, especially per-gigabyte transfer costs.
- Customers are demanding more predictability in CDN services spend and price transparency.
- Customers value direct support by services and technical personnel as long as it is cost effective.
- The CDN services market can benefit from better and near-real-time analytics as well as more access to the data source.
- A common SLA parameter is 100% availability.
- For large media companies, a multi-CDN architecture is highly desired not only from price competitiveness but more from availability and performance perspectives.
- Innovation at the edge and incorporation of programmability, DevOps, open source, virtualization, and APIs are key to long-term differentiation.
- Security is critical to all segments, with particular importance to web delivery and an increasing importance to media content delivery.

IDC MARKETSCAPE VENDOR INCLUSION CRITERIA

This IDC MarketScape included providers from all regions that met the following criteria:

- Commercial CDN providers with global presence in North America; Europe, the Middle East, and Africa (EMEA); and Asia/Pacific regions
- CDN providers with a minimum of $50 million of annual revenue

Providers that primarily resell CDN services have not been included in this document.

ADVICE FOR TECHNOLOGY BUYERS

Media companies and enterprises face several choices in their effort to select a CDN provider. These include the type of provider whether large incumbents or new emerging players and, in some cases, the choice to build a private CDN network. A single CDN or multi-CDN architecture is an additional consideration. Most enterprises are looking for a strategic partner than can adapt to their business needs. The following are some considerations in the choice of CDN providers:

- **Scale and footprint matching customer needs:** The scale, footprint, and ability to expand are key considerations for global enterprises that serve customers in multiple regions and are on a continued expansion path.

- **Innovation and programmability at the edge:** As the edge is transforming to be the new center for global ecommerce, a hub for rich media customer experience, and delivery of IoT content, enterprises should consider CDN providers that are the forefront of innovation at the edge. This includes programmability, open APIs, support for DevOps, virtualization, and a self-service portal to enable quick development on services.

- **Price visibility and reliability:** Enterprises are demanding better transparency to CDN pricing and predictability of monthly charges. They should look for CDN providers that support both aspects of CDN services pricing.

- **Rich analytics:** Analytics can provide key insights into customer behaviors, predict traffic demands, and ensure adherence to SLAs. Enterprises should consider CDN providers that provide rich and real-time analytics complemented by AI/ML tools to extract maximum benefits from the data.

- **Performance:** With the proliferation of real-time video streaming and demands of global ecommerce, enterprises choice of a CDN provider will include consideration of peak capacity, latency, and availability. Latency is particularly relevant to the delivery of live events to minimize delay between traditional TV distribution and streaming.

- **Multi-CDN:** Support of multi-CDN architecture is a key consideration of large media companies to manage peak traffic demands, improve overall availability, and expand geographic reach.

- **Security:** Security is a table stack for content delivery and critical to the choice of a CDN provider.

At IDC, we believe that enterprises that incorporate these considerations in their choice of a CDN services provider will drive better business outcomes.

VENDOR SUMMARY PROFILES

This section briefly explains IDC's key observations resulting in a vendor's position in the IDC MarketScape. While every vendor is evaluated against each of the criteria outlined in the Appendix, the description here provides a summary of each vendor's strengths and challenges.

Limelight

Limelight is positioned in the Leaders category in the 2019 IDC MarketScape for worldwide commercial CDN vendors.

Limelight, founded in 2001, has its headquarters in Arizona. Limelight's CDN spans 1,000+ connected ISP networks, 105+ delivery nodes, and 50Tbps+ egress capacity. Limelight has global presence across Americas, EMEA, and Asia/Pacific regions. As of December 31, 2018, Limelight had

approximately 649 active customers worldwide, including many widely recognized names in the fields of online video, digital music, news media, games, rich media applications, and software delivery.

Limelight has approximately 141 employees in its sales organization. The sales and service professionals are located in four offices in the United States, with an additional eight office locations in EMEA and Asia/Pacific. Majority of Limelight's client base belong to the midsize to large companies market segment whereby North America, Western Europe, and Asia/Pacific are its largest markets. Latin America, Middle East and Africa, and Central and Eastern Europe are among the vendor's emerging markets.

Limelight's CDN suite of managed services include the following:

- **Content delivery** services include content caching and the delivery of digital content including video, software, web content, web acceleration services, high speed purge, origin shield services, protocol support, and zero-rated traffic support.
- **Video delivery and management** includes services such as dynamic ad insertion, integrated DRM packaging, integrated online video platform, packaging of on-demand and live video for OTT delivery, video acceleration for low latency and real-time streaming for sub-second latency video distribution.
- **Cloud security** includes content security services (i.e., IP whitelisting/blacklisting, geolocation access control, tokenization, and DRM), TLS/SSL, DDoS, and WAF protection as well as bot management.
- **Origin storage services** consist of storage classes (high-performance access for popular content), flexible origin (serving as primary origin storage or backup origin), distributed object-based storage system with regional replication, automated replication, ingest, and migration from/to multiple locations.
- **Edge services** include instant access to Limelight's global network/edge locations, private backbone connectivity services, edge compute services, distributed storage through colocated edge POPs, and network access to ISP connections.

Limelight offers live 24 x 7 x 365 NOC support by phone and email at no cost. Customers can also use the self-service customer portal. The vendor provides in-region live local language support (English, Japanese, and Korean) and provides immediate escalation to tier 3 engineers when needed. Customers are enabled to set their own priority levels on incidents. For professional services, customers can turn to the "advanced service architects" to help guide organizations with complex integrations.

Limelight pricing model is based on a combination of platform and usage fees; advanced services are based on a monthly basis. Security services can be charged per monthly fee or for instance per traffic or request. Limelight offers bundles for basic content delivery and content management needs; security services are charged separately and not included in price bundling.

Limelight drives a smaller part of its revenue from established partnerships with telcos, security providers, and technology providers. Limelight is extending its partnership approach with the latest partnership agreement with Ericsson's Edge Gravity.

Strengths

During the past 18 years, Limelight has been successfully expanding its business, capacity, and capabilities in many ways, through acquisitions, in-house innovation, and sensible partnerships. The following differentiators of Limelight as a business of its CDN suite of services are:

- Limelight's dense and private network enables the vendor to provide delivery and edge services that enable it to meet high-quality services features such as a high cache-hit ratio, award winning purge standards.
- The vendor's investments in the media delivery space has bolstered its capabilities and helped realize differentiating features such as sub-second latency using WebRTC, support for other low-latency formats including HLS and CMAF, low rebuffering rates, integrated DRM packaging. Its integrated video platform is rather exceptional in the CDN services market.
- Its extensive level of partnerships (including its most recent partnership agreement with Ericsson's Edge Gravity), integration capabilities, and access to ISP connections (and peering agreements) amplifies Limelight's last mile performance in many locations and OEM opportunities.
- Limelight's high quality/price ratio will be an attractive alternative for customers that are seeking to lower its CDN-managed services.

Challenges

To compete with digital native and highly innovative CDN players, face the negative impact of price erosion, and continue to expand footprint, Limelight needs to consider the following:

- In addition to its existing interconnectivity and network access through a multitude of ISP connections, Limelight needs to build out its own capacity in key markets where today it is mostly part of a multivendor deployment.
- In addition to its investments in video delivery technology that have led to ultralow latency or other enriched features, improved capacity as mentioned previously will be key to meet (media) customers' demands for high performance and reliability (especially peak performance for live video streaming requirements).
- Limelight needs to increase sophistication of its security services, addressing integration and/or bundling of security with other offerings such as edge services.
- Focus more on serverless computing, virtualization, and embedded CDN services to provide scale and extend capacity. They need to continue to focus on innovative areas such as mobile edge, M2M, and IoT services.

APPENDIX

Reading an IDC MarketScape Graph

For the purposes of this analysis, IDC divided potential key measures for success into two primary categories: capabilities and strategies.

Positioning on the y-axis reflects the vendor's current capabilities and menu of services and how well aligned the vendor is to customer needs. The capabilities category focuses on the capabilities of the company and product today, here and now. Under this category, IDC analysts will look at how well a vendor is building/delivering capabilities that enable it to execute its chosen strategy in the market.

Positioning on the x-axis, or strategies axis, indicates how well the vendor's future strategy aligns with what customers will require in three to five years. The strategies category focuses on high-level decisions and underlying assumptions about offerings, customer segments, and business and go-to-market plans for the next three to five years.

The size of the individual vendor markers in the IDC MarketScape represents the market share of each individual vendor within the specific market segment being assessed.

IDC MarketScape Methodology

IDC MarketScape criteria selection, weightings, and vendor scores represent well-researched IDC judgment about the market and specific vendors. IDC analysts tailor the range of standard characteristics by which vendors are measured through structured discussions, surveys, and interviews with market leaders, participants, and end users. Market weightings are based on user interviews, buyer surveys, and the input of IDC experts in each market. IDC analysts base individual vendor scores, and ultimately vendor positions on the IDC MarketScape, on detailed surveys and interviews with the vendors, publicly available information, and end-user experiences in an effort to provide an accurate and consistent assessment of each vendor's characteristics, behavior, and capability.

Market Definition

The content delivery network (CDN) facilitates the secure and timely delivery of content to end users. Content typically includes time-sensitive streaming video, static and dynamic websites, large files such as over-the-air (OTA) updates, and medical imaging. CDN deploys a set of services to ensure the delivery of content on multiple display formats within well-established performance and quality-of-service metrics such as latency, jitter, and throughput.

A CDN is typically architected with geographically dispersed network of cache or proxy servers, deployed centrally and in edge servers. A cache server manages requests from end users and presents content initially coming from an origin server. CDNs may replicate or store multiple copies of internet content including web objects (text, graphics, and scripts), downloadable objects (media files, software, and documents), applications (ecommerce and portals), live streaming media, on-demand streaming media, and social networks. In summary, CDNs are the transparent backbone of the internet in charge of content delivery.

Strategies and Capabilities Criteria

Tables 1 and 2 include market-specific definitions and weights specifically tailored for CDN providers. This was used to measure vendor's performance and their specific place in the IDC MarketScape chart. Table 1 shows the definitions and weighting criteria used to evaluate CDN providers' strategies. Table 2 shows the definitions and weighting criteria used to evaluate CDN providers' capabilities.

TABLE 1

Key Strategy Measures for Success: Worldwide Commercial CDN Vendors

Strategies Criteria	Definition	Weight (%)
Financial	Revenue, growth potential, and financial strength	15.0

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Key Strategy Measures for Success: Worldwide Commercial CDN Vendors

Strategies Criteria	Definition	Weight (%)
Innovation	Emerging technologies: AI/ML, virtualization, P2P, IoT	13.0
Functionality — strategic	Road map for automation, orchestration, and analytics (e.g., AI/ML)	10.0
Growth	Strategic partnership in GTM and coverage	15.0
Functionality or offering strategy	Alignment with digital transformation enterprise initiatives	15.0
Co-innovation	Innovation with technology vendors and start-ups	10.0
Global coverage	Global/regional coverage based on POPs	12.0
Delivery	Extent of investment in edge POPs and virtualization centers	10.0
Total		100.0

Source: IDC, 2019

TABLE 2

Key Capability Measures for Success: Worldwide Commercial CDN Vendors

Capabilities Criteria	Definition	Weight (%)
Functionality or offering	Scale and scope of CDN services: Media delivery, web acceleration, caching, optimization, and security	15.0
Pricing model	Predictable, transparent, competitive, and flexible pricing model	10.0
Performance	Peak capacity performance in terabytes per second	15.0
Portfolio benefits	Ability to provide virtualized CDN services	10.0
Enhanced services	Emerging innovative services and vertical use cases	12.0
Customer service delivery	Depth and scale of consultative-led customer engagements including workshops, presales, and POCs	15.0
Customer service offering	Level of sales enablement and ability to articulate business value including vertical knowledge	10.0
Customer satisfaction	Perception of vendor from ongoing engagements	13.0
Total		100.0

Source: IDC, 2019

LEARN MORE

Related Research

- *Worldwide Content Delivery Network Market Shares, 2018: Market Leader Akamai Facing Nimbler Competitors* (IDC #US45276119, June 2019)
- *Worldwide Content Delivery Network Services Forecast, 2019-2023* (IDC #US44057419, May 2019)
- *Content Delivery Networks in a Transforming Media Industry* (IDC #EMEA44684718, January 2019)

Synopsis

This IDC study presents assessment of eight CDN vendors that provide commercial CDN services on a global basis. The assessment is based on their current capabilities and future strategies for delivering CDN services. This is the first comprehensive analysis by IDC on this mature but transforming market, and it provides insights to enterprises deciding on choices of CDN vendors.

"Enterprises' expectations of CDN providers are evolving as they undergo the journey to digital transformation. Traditional metrics in terms of performance and availability, while still important, are not enough for the choice of a CDN provider. On the technology front, enterprises are expecting an innovation agenda that incorporates virtualization, DevOps, open APIs, and programmability at the edge. On the commercial side, enterprises are demanding a commercial framework that is transparent, easy to understand, and embodies co-innovation to enable a richer customer experience. CDN providers that align their technological and commercial road maps with the digital transformation journey of the enterprise can become the future leaders." — Ghassan Abdo, research vice president, Worldwide Telecommunications

About IDC

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