Vendor Profile

Limelight Networks: Expanding to Edge Cloud

Ghassan Abdo  Melissa Fremeijer

IDC OPINION

Content delivery network (CDN) providers continue to expand infrastructure capacity to handle ever-increasing traffic growth estimated at 38% CAGR (2017–2022). CDN providers also face new challenges related to transformation of the edge as an emerging hub for distribution of content, competitive pressures as large content providers and hyperscalers build their own CDNs, increases in live video delivery, and decreasing margins. As a CDN provider, Limelight Networks differentiated itself with superior customer experience underpinned by a high-performance private network, software innovation, and excellent customer support. Limelight’s CDN spans 900+ connected networks, 80+ delivery nodes, and 35Tbps+ 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. While its original focus on performance and reliability ensured its past growth, Limelight's pivot to supporting the edge cloud and establishing new strategic partnerships will drive future growth and ensure its competitive advantage. At IDC, we believe that Limelight's private CDN network coupled with the move toward stronger edge presence will help the company in the following ways:

- It will help Limelight capitalize on increasing demand for live video and IoT, key drivers of future CDN traffic growth.
- Limelight's newly announced partnership with Ericsson Unified Delivery Network (UDN) will help the company expand into the service provider market at scale.
- Limelight should consider expanding to virtual CDN opportunities to host its CDN software services on large cloud providers. An expanded focus on security services and verticals will provide incremental revenue streams.

IN THIS VENDOR PROFILE

This IDC Vendor Profile analyzes the content distribution network (CDN) vendor Limelight Networks. It provides an overview of the company and its financials, services portfolio, and business strategy and IDC's outlook and advice.

Note: All numbers in this document may not be exact due to rounding.

SITUATION OVERVIEW

Digital content today is integral to driving customer engagement, customer journey management, and overall customer experience. It goes without saying that people are hungry for online content and are
consuming it at a faster pace than ever before. The on-the-go nature of content consumption demands immediate output regardless of access device.

CDNs are growing in importance to tackle several challenges related to delivering content to the end user on time and within acceptable quality parameters. These challenges include the following:

- Massive amounts of stored and online content must be delivered to end users efficiently and cost effectively. This applies to all content types: websites and on-demand or live video streams.
- As more content is moving to the edge, CDN's need to cache content as close as possible to the end user to reduce latency, minimize jitter, and improve quality of experience.

Company Overview

Limelight Networks, a Delaware corporation, established in 2001 and headquartered in Tempe, Arizona, is a global company offering comprehensive suite of network services worldwide. As of December 2018, the company had a presence in approximately 50 countries worldwide, with 649 customers. Limelight's edge services platform supports content delivery, video delivery, cloud security, and edge services. The company is widely recognized for its content delivery network services that helps enterprises transmit digital contents through globally distributed edge locations. In addition, the company also offers IT professional services and infrastructure services that helps Limelight Networks expand its services globally.

Financial Performance

In 2018, Limelight Networks generated revenue of $196 million, approximately 6.1% increase year on year (YoY). This follows an annual revenue increase of 10% in 2017 from 2016 (see Table 1). The revenue increase was primarily due to an increase in Limelight's content delivery revenue, which was driven by increases in volumes with certain larger customers. Limelight also experienced an increase in average selling price versus the comparable 2017 period.

<table>
<thead>
<tr>
<th>TABLE 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limelight Revenue and Growth, 2015-2018 ($M)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>America</td>
<td>103.0</td>
<td>100.0</td>
<td>116.1</td>
<td>119.0</td>
</tr>
<tr>
<td>Growth (%)</td>
<td>2.0</td>
<td>-3.0</td>
<td>16.0</td>
<td>2.6</td>
</tr>
<tr>
<td>Non-America</td>
<td>68.0</td>
<td>68.0</td>
<td>68.2</td>
<td>77.0</td>
</tr>
<tr>
<td>Growth (%)</td>
<td>11.0</td>
<td>-1.6</td>
<td>1.4</td>
<td>13.2</td>
</tr>
<tr>
<td>Total</td>
<td>171.0</td>
<td>168.0</td>
<td>184.0</td>
<td>196.0</td>
</tr>
<tr>
<td>Growth (%)</td>
<td>5.0</td>
<td>-2.0</td>
<td>10.0</td>
<td>6.1</td>
</tr>
</tbody>
</table>

Source: IDC, 2018
On a gross margin basis, Limelight demonstrated gradual increases in the 2016-2018 period, 42.4%, 47.6%, and 47.8%, respectively. This reflects excellent cost control and focus on higher-margin services. This is particularly impressive in a highly competitive market. Overall, the company maintained a strong balance sheet in 2018.

Limelight derives revenue primarily from the sale of components of the content delivery services, representing approximately 80% of its total revenue for the year ended December 31, 2018. Limelight also generates revenue through the sale of professional services and other infrastructure services, such as transit and rack space services.

For the years ended December 31, 2018 and 2017, Limelight had one customer, Amazon, which accounted for 30% and 17%, respectively, of total revenue. For the years ended December 31, 2016, Limelight had no customer that accounted for 10% or more of its total revenue (refer back to Table 1).

Customers and Contracts

The company provides a range of network services to its customers from several industry verticals such as gaming, retail, media and entertainment, and enterprise. Its premium customers operate business in online video, digital music, online gaming, software delivery, and news and rich media applications. The company has continuously changed its marketing and sales activities since 2015 to attract new customers and to retain its premium customers across several lines of business.

Limelight's active customers worldwide decreased to 649 as of December 31, 2018, compared with 717 as of December 31, 2017. Limelight is focused on customers that value quality, performance, availability, and service. During the years ended December 31, 2018 and 2017, sales to Limelight's top 20 customers accounted for approximately 71% and 66%, respectively, of total revenue.

Company Strategy

Product Strategy

Limelight's product offerings fall into four broad segments:

- **Online video**: This is the largest revenue segment for Limelight encompassing the management, packaging, and delivery of live and on-demand OTT video.
- **Digital content**: Digital content comprises large objects such as over-the-air (OTA) software updates, game downloads, and small objects of static and dynamic web content.
- **Cloud security**: Limelight provides a set of security services that offer a layered defense against unauthorized access to content and malicious website attacks.
- **Edge cloud**: Supported by 80+ edge POPs, Limelight's edge services include distributed edge computing, storage, and analytics capabilities that allow data to be processed close to its source for applications where latency is important.

Product/Service Offerings

Limelight's product and service offerings are listed in Table 2.
### TABLE 2

<table>
<thead>
<tr>
<th>Product/Service Offerings</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content delivery</td>
<td>Cost-effective, high-capacity, flexible, and secure global CDN solution with functionality such as unique intelligent high-speed purging</td>
</tr>
<tr>
<td>Video delivery</td>
<td>Real time (sub-second global streaming), live, and on-demand video delivery services with cloud-based transcoding/transmuxing, integrated digital rights management (DRM), storage, online video platform, and recording of live video streams for VOD playback</td>
</tr>
<tr>
<td>Edge cloud</td>
<td>Distributed set of edge computing technology powered with analytics and storage features; cloud services management at edge locations that significantly minimizes latency in edge compute applications</td>
</tr>
<tr>
<td>Cloud security</td>
<td>Multilayer security solution, including encryption (SSL), denial of service (DDoS) protection, and web application firewall (WAF) tools</td>
</tr>
<tr>
<td>Content delivery origin storage</td>
<td>High-performance, distributed storage solution for digital content libraries (Its automated regional replication feature enhances the speed of digital content processing.)</td>
</tr>
<tr>
<td>Support services</td>
<td>Dedicated network operations center and free, unrestricted access to technical support services</td>
</tr>
</tbody>
</table>

Source: IDC, 2018

### Key Differentiators/Strengths and Weaknesses

The company differentiates its products and services in the CDN market by offering high-quality delivery and superior customer service, with innovative functionality such as sub-second real-time live video streaming, high-speed purging, distributed high-speed storage, and edge services. The company provides CDN services globally through its state-of-the-art caching architecture with 98% cache hit efficiency that enhances the quality and performance of digital content transfers over the internet.

Limelight’s key differentiators include:

- **Architecture**: Private, high-speed network with dense/high cache footprint with distributed object storage
- **Software stack**: TCP/IP and DNS optimized around delivery with integrated suite of security and video management and packaging services
- **Services and support**: Differentiated customer services with industry-leading live customer support and trusted advisor relationship
- **Culture**: Focus on customer experience evidence by high NPS score
- **Global reach**: Availability in major metros with global redundancy
**Business Strategy**

The company has focused on the development of its CDN services for digital enterprises. The company has innovated its products and services by developing technologies specifically designed for delivery of digital media content over the internet. The company has marketed its products and services according to latest IT and networking trends such as cloud computing and IoT. The company has customized its CDN services to transmit large and smaller digital media files over its private global networks to help enterprises effectively manage their online data transmission services. Customized and integrated CDN services have helped Limelight Networks penetrate the CDN market more aggressively to remain competitive in the marketplace.

**Go to Market**

Limelight go to market (GTM) is mostly dependent on direct customer reach. It also works with channel partners, strategic partners, and technology providers to expand market coverage. Limelight's latest agreement with Ericsson UDN signifies a shift to expand into market segments not previously covered by the company.

As of December 31, 2018, Limelight had 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. Limelight's sales and service organization includes employees in telesales and field sales, professional services, account management, and solutions engineering. Training and retaining highly skilled technical personnel are critical to Limelight's success because of the deep technical nature of the offerings and the complexity of the company's services.

**Partnerships**

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 UDN.

In October 2018, Limelight Networks entered into an agreement with Ericsson, Swedish ICT company, to provide CDN services. Ericsson will implement Limelight's CDN solution on Ericsson's Unified Delivery Network Edge Cloud Platform for low latency and high-performance network services.

With this agreement, Limelight will deploy software to UDN installed base, typically service provider edge locations, thereby extending and expanding global footprint.

From a Limelight perspective, this agreement represents the following advantages:

- Exclusive provider for CDN
- Increase capacity without capex
- Revenue opportunity with access to private CDN with service providers
- Ability to expand into hard-to-reach locations

From an Ericsson UDN perspective, this partnership brings the following advantages:

- Focus investment on UDN edge
- Increases utilization of the UDN platform enabling faster penetration at the edge
- Stop investing in noncore asset (CDN)
- Significant revenue potential
At IDC, we believe this agreement provides Limelight the potential to further address the emerging edge cloud market. This market is driven by content explosion because of IoT, transformation of edge as a new center for global ecommerce, and the demand for analytics based on AI/ML to enrich customer experience. Limelight's continued focus on high performance, low latency, and edge expansion will help differentiate the company's offerings and drive further revenue growth.

**Target Markets**
Limelight's key target segments include:

- Media and entertainment
- Gaming
- Software
- Enterprise
- Retail
- Other sectors

**Geographic Coverage**
The company offers CDN services across Americas, EMEA, and Asia/Pacific regions. In 2018, Limelight Networks generated approximately 61% from Americas out of its total revenue. EMEA and Asia/Pacific revenue accounted for 19% and 20%, respectively. The United States, the United Kingdom, and Japan are the major countries that have generated the majority of revenue in terms of geographic location. Limelight's network capacity is currently estimated at more than 35Tbps ingress and egress capacity with connectivity to more than 900 ISP and last-mile networks. Limelight Networks has established more than 80 POPs located in more than 40 metro locations across the world.

**FUTURE OUTLOOK**
The CDN vendor market has become crowded as many new vendors have entered the commercial (pure-play) CDN arena in the past two decades. The number of new entrants in this market with transparent, low-priced (sometimes freemium) services, and innovative business models is growing rapidly. There is also increasing competition of CDN offerings from ISPs (telco CDN) and private CDNs.

IDC forecasts the worldwide commercial CDN market to grow at 20% CAGR for the 2017-2022 period. Video will dominate the forecast with CAGR of 24.5% during the same forecast period, representing a large share of around 77% of CDN traffic.

IDC expects the following growth drivers for the commercial CDN market:

- Significant growth can be seen in CDN traffic across all regions (worldwide CAGR of 36% for the 2017-2022 period), with the United States slowest at a CAGR of 29%.
- Internet video continues to dominate internet traffic and will represent 77% of all traffic by 2022. Online gaming will grow at 59% CAGR for the 2017-2022 period from a small base.
- 5G will drive growth in two to three years as more data moves to the edge.
- IoT growth will drive the commercial CDN market forward.
- The intelligent edge as a new commerce and content distribution center will drive the commercial CDN market.
- Growth of security services will help the commercial CDN market.
- Enterprise demand for CDN services will drive richer customer experience.

Meanwhile, the commercial CDN market will experience the following growth inhibitors:

- Move to private CDNs by OTT players and hyperscalers
- Price erosion because of increased competition
- Revenue shift to enhanced services primarily security services

CDN providers with differentiated networking services, hosted software CDN services, and the ability to capitalize on edge opportunities will continue to thrive despite competitive pressures. Strategic partnerships with hyperscalers, service providers, and technology providers will stimulate the overall market and are needed to address the global nature of CDN.

**ESSENTIAL GUIDANCE**

**Advice for Limelight Networks**

Limelight has differentiated its offerings with a clear focus on delivering high performance and lowest latency underpinned by a privately owned network. It was able to gradually increase gross margin by targeting customers that attach great value to these QoS parameters. Limelight nonetheless will face significant competitive pressures related to the move to private CDN by major content providers and hyperscalers, pressure on GB pricing, and emerging vCDN competition. Limelight can maintain a differentiated offer but needs to explore strategies that expand revenue streams and new market opportunities. These include:

- Develop a customer journey specific to targeted verticals especially as it relates to its digital transformation (DX) journey. Digital content is a critical enable of DX.
- Deliver on the new agreement with Ericsson UDC to establish references in delivering content to service provider edge locations. This is an untapped market with great revenue potential.
- Become a thought leader with respect to outcome-based customer engagements. The market is heading this way, and Limelight Networks has an opportunity to position itself as a market leader and innovator.
- Offer CDN services such as web acceleration and optimization as virtualized network functions (VNFs) to open new market opportunities to host them on telco, public cloud, and private cloud and can result in a healthy annuity business.
- Test the feasibility of most advanced technologies such artificial intelligence (AI) and machine learning (ML) to improve network performance and provide dashboards on customer behaviors.
- Explore strategic partnerships with 5G mobile providers. 5G will increase demand for mobile content at the edge.
- Capitalize on growth of linear video by underscoring its low latency and high-availability network.

At IDC, we believe that Limelight can continue a growth path that leverages its core networking capabilities enhanced with the pivot to serve the edge cloud. Its latest agreement with Ericsson UDN, if executed well, can prove to be the next growth vector for Limelight.
LEARN MORE

Related Research

About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

Global Headquarters

5 Speen Street
Framingham, MA 01701
USA
508.872.8200
Twitter: @IDC
idc-community.com
www.idc.com

Copyright Notice

This IDC research document was published as part of an IDC continuous intelligence service, providing written research, analyst interactions, telebriefings, and conferences. Visit www.idc.com to learn more about IDC subscription and consulting services. To view a list of IDC offices worldwide, visit www.idc.com/offices. Please contact the IDC Hotline at 800.343.4952, ext. 7988 (or +1.508.988.7988) or sales@idc.com for information on applying the price of this document toward the purchase of an IDC service or for information on additional copies or web rights.

Copyright 2019 IDC. Reproduction is forbidden unless authorized. All rights reserved.