Market Guide for Application Delivery Controllers

Published: 22 November 2017 **ID:** G00326165

Analyst(s): Mark Fabbi, Andrew Lerner

The ADC market continues to evolve, with various new cloud-integrated and software-centric use cases having arisen. This report provides infrastructure and operations leaders with a snapshot of the market's transition and profiles vendors representative of emerging and very different approaches.

Key Findings

- The emergence of cloud-native applications and microservice architectures is changing the nature of application delivery controller (ADC) requirements and vendors' offerings.
- The ADC market is no longer a single, undivided market serving traditional data-center-deployed application environments.
- Innovation is arising from small and open-source vendors.
- Enterprises are increasingly deploying ADC solutions from multiple vendors to optimize ease of use, features and price, for various use cases.

Recommendations

Infrastructure and operations (I&O) leaders planning, sourcing and managing network infrastructure should:

- Bring together application, network and security teams to determine the appropriate ADC architecture, before making long-term decisions about ADCs.
- Plan to extend the in-service life of traditional ADCs.
- Avoid employing a single ADC vendor for all deployment options and use cases for at least the next year, as no one vendor can deliver the expected solutions in all areas.

Market Definition

ADCs provide functions and services that optimize the delivery of enterprise applications across a network. ADCs provide functionality for both user-to-application and application-to-application traffic, and effectively bridge the gap between applications and underlying packet-based networks. ADCs are deployed to improve application availability and scalability, application and data center security, performance, data center resource utilization, and application visibility and analytics.

ADCs are also often referred to as "load balancers," as the ADC market evolved from load-balancing systems that were developed in the latter half of the 1990s (primarily to ensure the availability and scalability of websites). Historically, ADCs were purchased, deployed and managed by traditional I&O personnel. Today, however, application-centric personnel are increasingly making or heavily influencing ADC decisions, which may involve a variety of new solutions, such as:

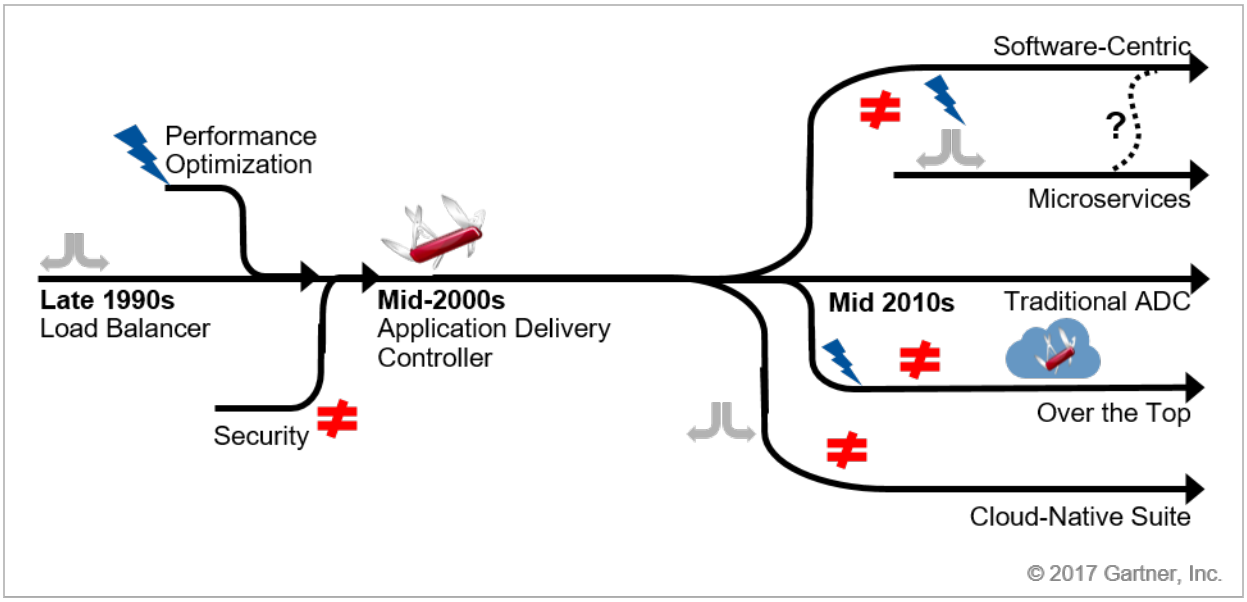
- Emerging software-based ADCs, including both commercial and open-source options with increasing support for containers and microservices
- Infrastructure as a service (IaaS) cloud provider-integrated ADC functionality
- "Over the top" ADC services

This divergence of ADC buying requirements is driving changes and innovations in the market. These correspond to what Gartner refers to as a "bimodal" work style — one that combines the conventional capabilities of an IT department with an ability to respond to the level of uncertainty and deliver the agility required for digital transformation.

Market Direction

Use cases for ADCs have extended well beyond those associated with the traditional hardware-based solutions of the past. The traditional market is driven by a hardware refreshment cycle, which for most enterprises will persist for at least four or five more years. However, increases in the useful life of deployed products will result in declining revenue in this market segment. Beyond traditional, infrastructure-led deployments, we see three separate ADC solutions emerging to serve specific use cases — namely, cloud-integrated software stacks, over-the-top ADC as a service (ADCaaS) and software-based (possibly open-source) alternatives (see Figure 1). The representative vendors profiled below where chosen to illustrate all four ADC deployment models.

Figure 1. The Disaggregation of the Application Delivery Controller Market

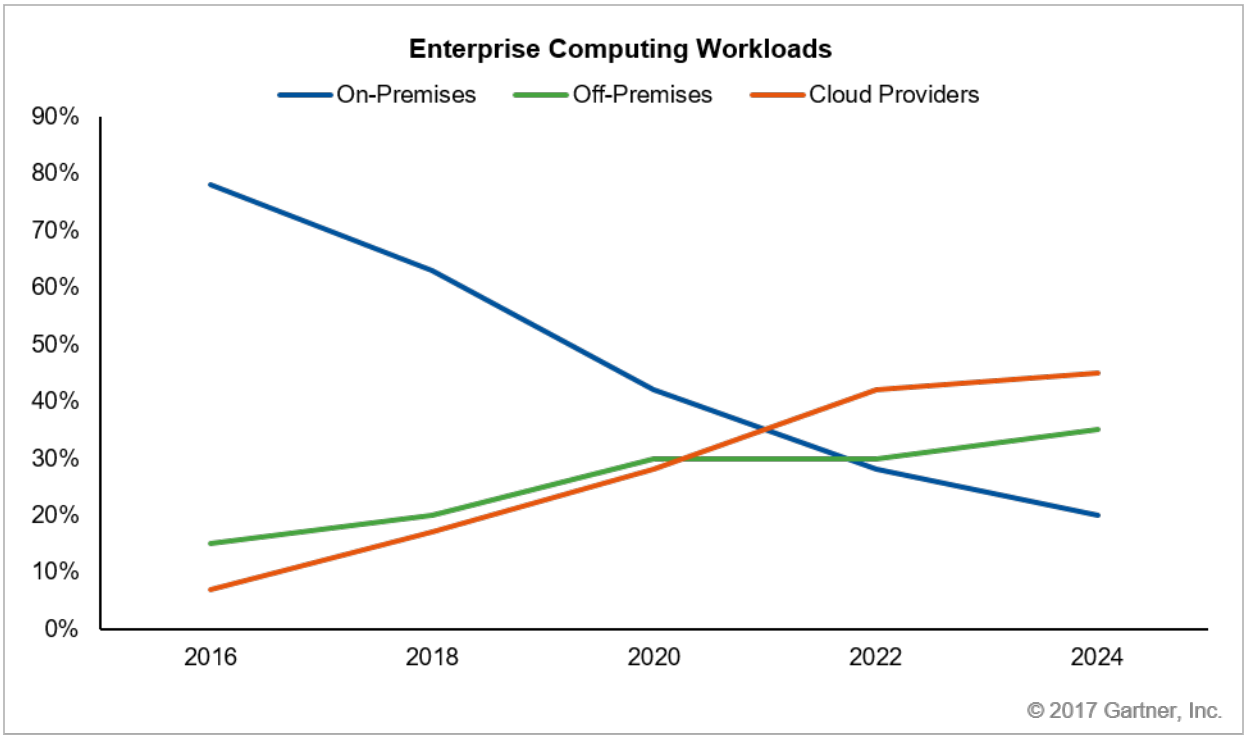


ADC = application delivery controller

Source: Gartner (November 2017)

The market's transition results from increasing deployment of applications in the public cloud, and to a lesser extent, from microservice-based applications built in private and public clouds. Some application segments (such as email, unified communications and collaboration) are migrating to SaaS, but most new enterprise application deployments are being designed for IaaS/PaaS deployments. The shift in workloads away from on-premises data center deployments (see Figure 2) is having a marked effect on the types of ADC solution and the vendors involved in the market.

Figure 2. Workload Distribution



Source: Gartner (November 2017)

Software-centric solutions are being delivered by all the vendors in this market. However, some clear patterns are emerging, with newer vendors capturing the bulk of new ADC deployments. While traditional ADC players all offer software ADCs, they are generally monolithic software versions of their feature-rich appliance-based ADCs. New use cases do not necessarily require these large-scale integrated platforms and can be burdened by traditional, resource-intensive options. By far the largest software-centric category is represented by native cloud-integrated features, such as Amazon Web Services' (AWS's) Elastic Load Balancing and Microsoft's Azure Load Balancer and Application Gateway. A large majority of applications deployed on AWS and Microsoft Azure take advantage of the native ADC functionality.

A second trend is for the use of software-only solutions, especially open-source alternatives such as Nginx and HAProxy. Selection of these offerings is driven by application developer influencers; it has shifted control of the market away from the traditional, infrastructure vendors that dominated sales of on-premises data center appliance-based solutions.

Market Analysis

Traditional ADC Vendors

Traditional ADC vendors, such as F5 and Citrix, have competed in this market for many years, and typically provide multiple functions within their platforms. Their ADCs commonly provide Layer 4 load balancing, Layer 7 load balancing, Secure Sockets Layer (SSL) termination, global load balancing, compression, protocol optimization and additional security functions.

Traditional ADCs are typically owned, managed and operated by infrastructure and operations (I&O) teams, particularly network teams. Decisions to buy them are typically led by the vice president of I&O, network directors/managers and, within midsize organizations, the CIO.

Integrated Public Cloud Solution Providers

IaaS integrated ADC vendors include cloud IaaS vendors that offer ADC capabilities as a feature of their cloud offering. Amazon, Google and Microsoft are examples of vendors that provide this functionality. Typically, the workloads must be installed within the cloud provider's IaaS cloud. Generally, the depth of features available is much less than with traditional ADC vendors.

Buying decisions are usually led by application and cloud personnel, including CTO, and members of enterprise architecture and cloud teams.

Over-the-Top ADC Vendors

OTT ADC functionality is delivered as a cloud-resident service and was developed as a response to changing traffic patterns that migrated away from deterministic hub-and-spoke models. OTT offerings are available from Akamai and Webscale and many other targeted vendor offerings. Conceptually, as browser technology has become more sophisticated and applications are composed of increasingly disaggregated services, the browser has taken on some of the role of the web server — aggregating content from multiple sources.

Buying decisions for OTT services are largely security-led (for services like distributed denial of service [DDoS] mitigation and web application firewall [WAF]). However, we also see a growing need for global load balancing (and related DNS features), performance optimization and cloud redirection.

Software-Only ADC Vendors

Software-only ADC vendors, such as Avi Networks, Nginx and PulseSecure, have re-emerged as x86 platforms have evolved to enable complex packet-handling tasks to be undertaken at scale on standard platforms. Software-only solutions allow portability between on-premises, colocation and cloud-delivered application deployment models. They also fostered the move toward per-application deployment, rather than the per-environment deployment that was predominant with traditional, hardware-centric solutions. Software solutions have disaggregated many of the features that were integrated over the years into traditional appliance-based ADC platforms. Software

images tend to be much leaner and more focused than traditional ADC instances. Software-only solutions also allow for more flexible licensing models, based on usage.

Software solutions are available both as commercial offerings and as part of open-source projects. They are often selected by application development personnel, rather than traditional infrastructure buyers. The increasing influence of application developers has also driven the need for easy access to ADC functionality.

Microservices

We increasingly see organizations build new applications based on a microservice architecture, to improve development lead times by up to 75% (see "Innovation Insight for Microservices"). This effort is typically led by cloud or application teams.

Within a microservice architecture, application services that were once monolithic are now separated and distributed. As a result, many communications between services now require network connectivity, whereas in the past they were internal to a server or virtual machine ("east-west traffic"). The result is an emerging requirement for "service mesh" infrastructure software, which is designed to optimize communications between application services. It provides internal gateways and lightweight mediation for service-to-service communications (see "Emerging Technology Analysis: Microservice Infrastructure").

Within a microservice environment, service mesh software can provide several features that are traditionally delivered by ADC products, including authentication and authorization, proxy, request routing, load balancing, communication stability and service monitoring. To date, traditional ADC products have gained no meaningful traction in this environment, largely because solutions have not been rearchitected for emerging use cases.

The market is extremely volatile, dynamic and immature, with current technologies being incomplete and predominantly supplied as piecemeal open-source software or cloud services. It is unclear whether an independent service mesh market will develop, or whether service mesh will become a feature of an existing market, such as the ADC or container orchestration markets. However, because service mesh includes ADC functionality, we include in this Market Guide one vendor, Buoyant, that curates and provides commercial support for Linkerd, a popular service software. Other vendors and open-source projects that provide ADC and load-balancing capability for microservice service mesh environments include Backplane (commercial) and Istio (open source). We expect vendors from the other categories to introduce relevant products as well, in the next 18 months.

Representative Vendors

The vendors listed in this Market Guide do not imply an exhaustive list. This section is intended to provide more understanding of the market and its offerings.

The vendors profiled in this section were selected to provide a snapshot of emerging use cases in the ADC market. All the profiled vendors provide some of the key attributes of an ADC — namely features and services to improve the delivery of applications across networks.

Traditional ADC Vendors

The vendors profiled in this section are all long-standing players in the ADC market. Many of them were pioneers of the load-balancing and ADC markets that emerged in the late 1990s and early 2000s. Although these vendors offer various software, cloud-resident and container-based ADC solutions, their primary revenue streams remain largely hardware-appliance-based. As a result, we expect that less than 40% of the traditional vendors will maintain their influence and market share in the overall ADC market. Most of these traditional vendors provide broad and deep ADC functionality that includes Layer 4/Layer 7 load balancing, SSL termination, WAF, global server load balancing (GSLB), application optimizations, customized scripting, and templates for configuring common enterprise applications. Several, such as Piolink and New H3C, cater to certain geographic regions specifically.

The ADC market is likely to consolidate as the traditional sector contracts and software-centric sectors continue to grow. Recently, we have seen A10 acquire Appcito and F5 acquire LineRate Systems.

In addition to the traditional ADC vendors profiled below, Gartner tracks other traditional ADC vendors, such as Fortinet, Huawei, jetNEXUS, Loadbalancer.org, New H3C Group and Piolink,

A10 Networks

www.a10networks.com

A10 Networks is a publicly held company based in San Jose, California, U.S. It has approximately 5,000 ADC customers.

A10 has an established footprint in large-scale environments, including e-commerce and service providers. In addition, it has continued to progress in the enterprise sector: We estimate that 60% of its revenue comes from enterprises.

A10 offers full-featured "traditional" ADC software via its Thunder line. It has also attempted to address the emerging trend for lighter-weight, lower-friction ADC services by recently introducing its Lightning software. Lightning is the result of A10's 2016 acquisition of Appcito, and is meant for cloud and microservice environments.

A10 provides strong ADC price/performance and simplified ordering of SKUs, in comparison with most traditional vendors. However, it lacks some features, such as an SSL VPN, and it has less extensive enterprise experience than many vendors.

A10 is a good choice for organizations with large-scale networks that require both traditional ADC functionality and lighter-weight cloud instances.

Array Networks

www.arraynetworks.com

Array Networks is based in Milpitas, California, U.S. We estimate that it has a few thousand paying ADC customers, mostly midmarket enterprises and service providers in Asia/Pacific and North America.

Array provides multiple networking products, including ADCs. It offers hardware and software-based ADC products.

Recently, Array has shifted its strategic focus to the AVX platform, which supports multiple networking functions, including ADC functions, along with support for third-party functions. Consequently, Array will both compete against and partner with other ADC vendors.

Array's ADC products support high-performance/high-capacity SSL implementation at a cost-effective price. There is also support for multitenancy with guaranteed performance. However, Array lacks an installed base and advanced capabilities for complex enterprise application environments, compared with leading traditional competitors.

Consider Array for cost-effective SSL-based solutions, ADC multitenancy and consolidation projects, particularly in Asia/Pacific and North America.

Barracuda Networks

www.barracuda.com

Barracuda Networks is a publicly traded company based in Campbell, California, U.S. It has 12,000 ADC customers, predominantly midsize organizations.

Barracuda's ADC offerings have a basic feature set. They are generally aimed at smaller deployments, as Barracuda lacks centralized, role-based management and multi-instance appliance solutions, which are key for larger deployments. Barracuda also lacks some advanced application performance features, as well as OTT ADC service offerings and container support for microservices. For customers looking for stronger security features, Barracuda offers a WAF with a number of ADC features.

Consider Barracuda if you are buying for a midsize enterprise in North America or EMEA that needs a cost-effective, basic ADC platform.

Citrix

www.citrix.com

Citrix is a publicly traded vendor based in Fort Lauderdale, Florida, U.S. The Citrix NetScaler portfolio includes a broad range of ADC solutions, including single- and multi-instance hardware, software (both virtual and containerized), and cloud-resident and OTT deployment options. The NetScaler portfolio supports 25,000 customers worldwide, with many deployed as part of XenApp/XenDesktop installations.

Over the past year, Citrix has focused on increasing its analytic and management capabilities with the introduction of the Management and Analytics System (MAS), new OTT services and more flexible, capacity-based licensing options. It has also added more dedicated sales and engineering staff to better address enterprise opportunities.

Consider Citrix for all ADC opportunities, worldwide.

F5

www.f5.com

F5 is a publicly traded vendor based in Seattle, Washington, U.S. It has long been the market share leader in the ADC segment. F5 reports that it has more than 25,000 enterprise customers for its Big-IP, Viprion and Virtual Edition ADC product families.

F5 offers a wide range of appliance and software-based platforms with an extensive set of ADC features for security, offloading and application performance. Recent innovations include the release of a limited set of OTT features in F5's Silverline service, as well as the Application Connector and Container Connector to help insert F5 services into cloud and container environments. F5's business model is still closely aligned with a traditional infrastructure model. F5's limited software-licensing models do not meet all expectations for software- and cloud-centric environments.

Consider F5 for all traditional ADC opportunities. Existing F5 customers should monitor and evaluate F5's evolving capabilities relating to the cloud and microservices.

Kemp Technologies

www.kemptechnologies.com

Kemp Technologies, which is based in New York, U.S., is a vendor of hardware and software ADC solutions, for which it has over 15,000 customers.

Kemp provides most traditional ADC functionalities, but lacks ADCaaS (OTT) capabilities. Although we have placed Kemp in the traditional ADC category, this vendor is particularly strong in software-based deployment scenarios, and offers attractive pricing options, including freemium. This enables it to serve both traditional and emerging use cases. The company's management platform, Kemp 360, is highly innovative in providing SaaS-based management support for Kemp ADCs and third-party ADCs from F5, Nginx, HAProxy and Amazon Web Services (AWS). Kemp is particularly well-established with midsize organizations and within Microsoft Azure environments, but its product capability extends to the enterprise as well.

Consider Kemp for midsize to mainstream enterprise requirements, especially those that bridge traditional and software ADC use cases.

Radware

www.radware.com

Radware, which is based in Tel Aviv, Israel, was a pioneer of the ADC market. We estimate that it has around 7,500 enterprise customers.

Radware offers a wide range of performance options and features, with a streamlined set of appliances. It has integrated strong security capabilities into its ADC offerings. It also offers stand-alone security solutions for both on-premises and cloud deployment. Although we have placed Radware in the traditional ADC vendor category, it was the first traditional ADC vendor to deliver OTT-based offerings and provide several OTT functions, including DDoS mitigation, WAF and web acceleration services. Radware has integrated analytics and its FastView acceleration capabilities into a proactive application SLA offering.

Consider Radware for traditional deployment as well as OTT requirements.

Sangfor

www.sangfor.com

Sangfor, which is based in Shenzhen, China, is a vendor of ADC, WAN optimization and related networking products. We estimate that Sangfor has 5,000 enterprise customers for the Sangfor AD ADC product.

Sangfor sells predominantly to China's networking market, but has a growing footprint in north Asia. Sangfor has established itself as a viable provider of traditional ADC solutions and can deliver these as both hardware and software. Features are limited to the standard traffic management features of traditional load balancing.

Sangfor appears to be slow to address the needs of Mode 2 developers, with little by way of cloud integration, low-friction access to streamlined software options or flexible deployment options.

Integrated Public Cloud Solution Providers

Native cloud stack options are available from various public cloud providers. They are generally part of a large suite of capabilities within the cloud provider's software stack, and are often used by developers skilled in writing to specific cloud environments. Although representing "one stop" offerings for a range of services, cloud-native approaches result in cloud provider lock-in as the services are not portable between cloud providers.

In addition to the vendors profiled below, Gartner tracks the ADC solutions offered by Google and IBM (SoftLayer).

Amazon Web Services

aws.amazon.com

Amazon Web Services (AWS), which is based in Seattle, Washington, U.S., provides cloud services. Its ADC functionality has emerged as the fastest growing and largest of the new cloud and software-centric offerings, due to AWS's position as the largest enterprise cloud provider.

AWS's Elastic Load Balancing portfolio provides both Layer 4 and Layer 7 options, combined with autoscaling of load-balancing services and workloads. Beyond the standard load-balancing features, AWS offers global content delivery, global load-balancing and DNS services, security capabilities (such as WAF, DDoS mitigation and free SSL certificate management) and a range of analytic features. AWS's ADC features are priced on a usage basis, and its ADC capabilities are only offered within the AWS cloud footprint.

AWS is often the choice of developers that are well-versed in the AWS stack and that use the full range of AWS development and deployment features.

Microsoft

azure.microsoft.com

Microsoft, a publicly traded company based in Redmond, Washington, U.S., provides ADC functionality primarily within its Azure cloud services.

Within the public Azure cloud offering, Microsoft provides basic Layer 4 traffic load balancing via Azure Load Balancer (ALB), Layer 7 application level load balancing via Azure Application Gateway (AAG), and global load balancing via Azure Traffic Manager (ATM). These services are natively integrated into other platform services within the Azure cloud, including Azure Monitor, Azure Log Analytics and Azure Security Center. With the introduction of Microsoft's Azure Stack, the vendor's ALB and AAG capabilities are included, and can extend Layer 4 to 7 load-balancing services to on-premises locations. Microsoft's suite of ADC services provides basic ADC functions at low cost, but currently lacks the more advanced enterprise features of established ADC players.

Consider Microsoft's suite of ADC services when deploying applications within the Azure cloud or on an Azure Stack system.

Over-the-Top ADC Vendors

Over-the-top (OTT) service offerings will represent a growing use case for a number of discrete ADC functions, including security, global load-balancing and acceleration services. They may also play a critical role in a multicloud strategy to direct and orchestrate application flows among multiple cloud and on-premises data center deployments.

There is a wide range of OTT providers. They include traditional vendors (such as Citrix, F5 and Radware) and OTT-focused players (such as Cedexis, Fastly and Instart Logic).

Akamai

www.akamai.com

Akamai is a publicly traded company based in Cambridge, Massachusetts, U.S. It was a pioneer in developing OTT solutions, initially as the innovator behind content delivery networks (CDNs).

Today, Akamai offers a broad range of OTT services, including CDNs, web application performance optimization, global traffic management and DNS services, and a range of security functions. Although primarily an OTT provider, Akamai has integrations with Cisco router platforms and Riverbed SaaS acceleration to extend its capabilities to a broader set of enterprise applications.

Consider Akamai for all internet-based applications where OTT and edge services are required.

Webscale

www.webscale.com

Webscale is a privately held ADC vendor based in Mountain View, California, U.S. It has an estimated 100 paying customers.

Webscale provides ADC functions, delivered OTT as a service, which include Layer 7 load balancing, GSLB, WAF and protocol optimization. Webscale provides strong automated provisioning capabilities that fit well into development workflows including continuous integration and continuous delivery. Given Webscale's automation strength and method of OTT delivery, most of its customers use it for applications deployed in the public cloud, not in private or on-premises data centers. Webscale does not provide "traditional" Layer 4 load balancing.

Consider Webscale if your organization is deploying user-facing applications in the public cloud.

Software-Only ADC Vendors

Software solutions have reappeared in the ADC market as both competitive alternatives to traditional appliance-based ADC solutions and developer-centric approaches — often driven by the use of open-source software environments. Software solution vendors generally offer usage-based licensing and often autoscaling to enable a broad range of performance coverage.

The emerging players tend to have less feature-rich capabilities than traditional ADC vendors, although we see strong investment in feature development in a number of these vendors' roadmaps.

In addition to the profiled vendors, we track ADC solutions from Backplane, HAProxy, Istio, ShieldSquare, Snapt, Varnish and Zevenet.

Avi Networks

www.avinetworks.com

Avi Networks is a venture-funded company, based in Santa Clara, California, U.S., that was founded in 2012. Avi provides a software-based ADC solution that aligns primarily with newer and cloud-native applications. Gartner estimates Avi has 100 mostly large-scale customers for this product.

Avi's product offers strong programmability and good central management, and it embeds visibility and analytics. The product can be deployed both on-premises and in the cloud, with a single control plane orchestrating the entire ADC footprint. Avi can autoscale ADC capacity for each

individual application by adding additional core capacity on demand. As a result, its product is well-suited for scale-out and per-application (as opposed to per-environment) ADC deployments. Furthermore, the product is delivered at a very cost-effective price, typically less than half that of traditional hardware-based ADC solutions. Avi currently lacks several capabilities of traditional ADC vendors, including a hardware form factor, SSL VPN and IPv6 gateway functionality.

Consider Avi if your organization wants a cost-effective, software-based ADC to support cloud-native and public web-based applications.

Buoyant

buoyant.io

Buoyant is a venture-backed startup, based in San Francisco, California, U.S., that was founded in 2015. It delivers software to help organizations create cloud-native applications.

Buoyant is representative of a type of emerging vendor focused on application delivery for microservice architectures, particularly service mesh. It was the original curator of Linkerd and now provides commercial support and differentiation on top of the open-source project called Linkerd, which is now hosted by the Cloud Native Computing Foundation (CNCF). Other service mesh products include Backplane (commercial) and Istio (open source). Linkerd provides load balancing, HTTP proxy, health monitoring, and security via Transport Layer Security (TLS), and it can discover services. We often see Linkerd used in environments running Kubernetes. Buoyant also works with Apache Mesos and within Amazon. This product is not intended to be used outside a microservice environment.

Consider Buoyant and Linkerd if your organization is implementing a service mesh.

Nginx

www.nginx.com

Nginx is a venture-funded company based in San Francisco, California, U.S. It has 1,200 paying ADC customers.

The company's flagship product, Nginx Plus, provides ADC features and commercial support based on open-source software (also called Nginx). Nginx Plus is a software-only ADC that runs on Linux. It is priced on a subscription basis that we observe primarily in application-centric and DevOps environments. Most of this vendor's deployments are within large-scale web environments, where programmability is required, although it also has a small installed base in the mainstream enterprise sector. Nginx is extremely cost-effective, compared with traditional ADC vendors, often being 50% to 75% less expensive. However, it lacks several capabilities, including a turnkey hardware appliance and features such as an SSL VPN and enterprise application enhancements.

Consider Nginx if your organization wants a per-app, software-based ADC or needs commercial support for open-source Nginx.

PulseSecure (formerly Brocade)

www.pulsesecure.com

PulseSecure is a San Jose, California, U.S.-based vendor that recently acquired the virtual (software) ADC (vADC) business from Brocade. PulseSecure is the fourth owner of this business's early software-based ADC technology in the past six years, and it currently reports over 3,500 enterprise customers.

PulseSecure's vADC is a software-only solution that offers high performance and a rich set of ADC features in a platform well positioned to be deployed on-premises or in the cloud. As early as 2013, the solution was the subject of innovation in terms of flexible licensing models that focused on throughput, rather than ADC instances, and that enabled customers to "spin up" as many instances as required within set performance limits (something that many traditional vendors still do not offer). Bursting beyond limits was allowed and is now controlled through PulseSecure's Services Director orchestration and management system.

Consider PulseSecure when flexible per-application deployments are a requirement.

Market Recommendations

Organizations considering ADC solutions face a market that in one respect looks mature and stable, with well-known, established vendors. It has, however, split into segments, each with well-defined use cases.

Although there are signs of the blurring of use cases and potentially of vendors, at present no one vendor has a strong solution for all environments. This is leading to a period in which the task of managing ADC requirements and platforms is becoming increasingly complex. For at least the next year, you should not consolidate your ADC investments on a single vendor or platform, but rather optimize your investments for particular deployment requirements. For more organizations, the useful in-service life of traditional ADCs may therefore extend to as much as seven years (in some cases, to the end-of-service date for existing platforms).

During this period when many organizations will use multiple suppliers, we also recommend assessing new management tools that enable multivendor management as the first step toward achieving a consolidated ADC footprint. It is important to bring together application, network and security teams to determine the appropriate ADC architecture before making strategic or long-term ADC decisions. For most organizations, this will mean focusing more resources on emerging deployment models and understanding how to deploy services for cloud-resident applications and hybrid use cases that span cloud and on-premises deployments. Organizations that are heavily investing in container technologies should also evaluate new microservice offerings.

Finally, expect traditional players that provide support for both full-featured traditional ADC offerings and lighter-weight software-focused offerings to be better positioned than hardware-centric vendors in this transitional market.

Gartner Recommended Reading

Some documents may not be available as part of your current Gartner subscription.

"Hype Cycle for Enterprise Networking and Communications, 2017"

"How I&O Teams Can Survive the Return of the Zombie Load Balancers"

"Innovation Insight for Microservice Infrastructure"

"Magic Quadrant for Web Application Firewalls"

GARTNER HEADQUARTERS

Corporate Headquarters
56 Top Gallant Road
Stamford, CT 06902-7700
USA
+1 203 964 0096

Regional Headquarters
AUSTRALIA
BRAZIL
JAPAN
UNITED KINGDOM

For a complete list of worldwide locations,
visit http://www.gartner.com/technology/about.jsp

© 2017 Gartner, Inc. and/or its affiliates. All rights reserved. Gartner is a registered trademark of Gartner, Inc. or its affiliates. This publication may not be reproduced or distributed in any form without Gartner's prior written permission. If you are authorized to access this publication, your use of it is subject to the Gartner Usage Policy posted on gartner.com. The information contained in this publication has been obtained from sources believed to be reliable. Gartner disclaims all warranties as to the accuracy, completeness or adequacy of such information and shall have no liability for errors, omissions or inadequacies in such information. This publication consists of the opinions of Gartner's research organization and should not be construed as statements of fact. The opinions expressed herein are subject to change without notice. Although Gartner research may include a discussion of related legal issues, Gartner does not provide legal advice or services and its research should not be construed or used as such. Gartner is a public company, and its shareholders may include firms and funds that have financial interests in entities covered in Gartner research. Gartner's Board of Directors may include senior managers of these firms or funds. Gartner research is produced independently by its research organization without input or influence from these firms, funds or their managers. For further information on the independence and integrity of Gartner research, see "Guiding Principles on Independence and Objectivity."