Gartner

Magic Quadrant for Application Delivery Controllers

30 October 2012 ID: G00223419

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VIEW SUMMARY

The application delivery controller has evolved into a key component of the data center architecture, and enterprises should evaluate ADCs based on how they integrate with this architecture and support more-advanced features, such as user and traffic control and monitoring.

Market Definition/Description

Application delivery controllers (ADCs) provide functions that optimize enterprise application environments. The market evolved from the load-balancing systems that were specifically developed to ensure the availability and scalability of websites. Enterprises use ADCs to optimize reliability, end-user performance, data center resource use and security for a variety of enterprise applications.

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Magic Quadrant

Figure 1. Magic Quadrant for Application Delivery Controllers

EVALUATION CRITERIA DEFINITIONS

Ability to Execute
Product/Service: Core goods and services offered by the vendor that compete in/serve the defined market. This includes current product/service capabilities, quality, feature sets, skills and so on, whether offered natively or through OEM agreements/partnerships as defined in the market definition and detailed in the subcriteria.

Overall Viability (Business Unit, Financial, Strategy, Organization): Viability includes an assessment of the overall organization's financial health, the financial and practical success of the business unit, and the likelihood that the individual business unit will continue investing in the product, will continue offering the product and will advance the state of the art within the organization's portfolio of products.

Sales Execution/Pricing: The vendor's capabilities in all presales activities and the structure that supports them. This includes deal management, pricing and negotiation, presales support, and the overall effectiveness of the sales channel.

Market Responsiveness and Track Record: Ability to respond, change direction, be flexible and achieve competitive success as opportunities develop, competitors act, customer needs evolve and market dynamics change. This criterion also considers the vendor's history of responsiveness.

Marketing Execution: The clarity, quality, creativity and efficacy of programs designed to deliver the organization's message to influence the market,
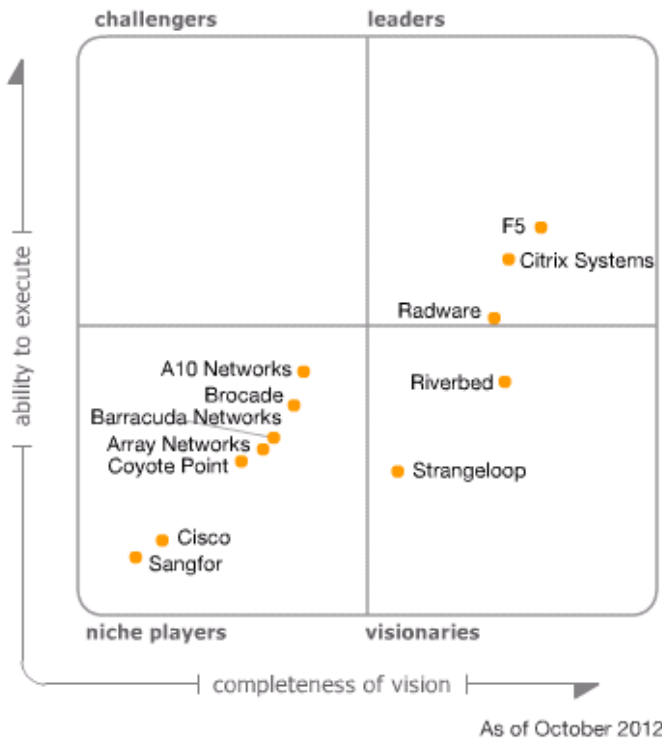
As of October 2012

Source: Gartner (October 2012)

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Vendor Strengths and Cautions

A10 Networks

A10 continues to gain market share and brand awareness, especially in Asia, and it is aggressively targeting the North American market. Its product development has placed focus on developing a scalable high-performance platform with a strong feature set but a more limited focus on establishing a data center architectural vision. While strong in its product focus, A10 has demonstrated more limited innovation and still has a more narrow feature support than leading vendors. A10 is a good choice for enterprises seeking a cost-effective, highly scalable solution that supports an advanced load-balancing feature set.

Strengths

A10 offers all-inclusive licensing for all its products, making it simple for the enterprise to purchase and manage.

A10 offers a high-performance platform, with solid support of advanced traffic management and

promote the brand and business, increase awareness of the products, and establish a positive identification with the product/brand and organization in the minds of buyers. This "mind share" can be driven by a combination of publicity, promotional initiatives, thought leadership, word-of-mouth and sales activities.

Customer Experience: Relationships, products and services/programs that enable clients to be successful with the products evaluated. Specifically, this includes the ways customers receive technical support or account support. This can also include ancillary tools, customer support programs (and the quality thereof), availability of user groups, service-level agreements and so on.

Operations: The ability of the organization to meet its goals and commitments. Factors include the quality of the organizational structure, including skills, experiences, programs, systems and other vehicles that enable the organization to operate effectively and efficiently on an ongoing basis.

Completeness of Vision

Market Understanding: Ability of the vendor to understand buyers' wants and needs and to translate those into products and services. Vendors that show the highest degree of vision listen and understand buyers' wants and needs, and can shape or enhance those with their added vision.

Marketing Strategy: A clear, differentiated set of messages consistently communicated throughout the organization and externalized through the website, advertising, customer programs and positioning statements.

Sales Strategy: The strategy for selling products that uses the appropriate network of direct and indirect sales, marketing, service, and communication affiliates that extend the scope and depth of market reach, skills, expertise, technologies, services and the customer base.

Offering (Product) Strategy: The vendor's approach to product development and delivery that emphasizes differentiation, functionality, methodology and feature sets as they map to current and future requirements.

Business Model: The soundness and logic of the vendor's underlying business proposition.

Vertical/Industry Strategy: The vendor's strategy to direct resources, skills and offerings to meet the specific needs of individual market segments, including vertical markets.

Innovation: Direct, related, complementary and

scripting features and a broad set of security features; however, it uses a third-party Web application firewall (WAF).

A10 supports Internet Protocol version 6 (IPv6) with feature parity, and it has a strong IPv6 gateway functionality.

Cautions

The trial phase of the legal battle between A10 and Brocade was completed, but a final verdict has not been rendered, and the amount of damages awarded and their impact on A10's business and financial health remain unclear. Enterprises considering A10 should obtain up-to-date information on the legal case and involve your risk assessment teams as an integral part of any A10 evaluation process.

While A10 has a growing client base outside of North America, especially in Asia, the majority of support staff is still placed in the U.S., although this is being addressed with support centers in Beijing, Taiwan and Tokyo.

Although the platform supports strong traffic scripting and the scripts can be managed via the management platform, there is limited integration with third-party application development platforms for close integration with application development and management.

A10 has limited focus on Web acceleration for mobile end users, limited traffic reporting, and limited application visibility and performance reporting as well; however, custom scripting capabilities can be used to improve on this.

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Array Networks

Array continues to do well in Asia, in particular in China, but it has had difficulty gaining a foothold in the North American market. It has now established various partnerships specifically to enable growth in North America, and its efforts are showing signs of traction. Feature support is still narrow, reflecting its concentration on both midmarket enterprises and providers that focus less on advanced functionality and more on price, performance and scalability of basic load balancing. Array is a good choice for price-sensitive enterprises in Asia seeking load balancing with lesser focus on security features.

Strengths

Array has a good understanding of its target market and has a focused approach to new features and capabilities for that market.

Array has a strong focus on midsize enterprises in Asia — in particular, the businesses in China, India and Japan that are seeking cost-effective high-performance load balancers.

Array continues to broaden its platform for high scalability and high performance, as well as multitenancy and virtual ADC capabilities.

Array supports IPv6 with feature parity, as well as has strong IPv6 gateway functionality.

Cautions

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synergistic layouts of resources, expertise or capital for investment, consolidation, defensive or pre-emptive purposes.

Geographic Strategy: The vendor's strategy to direct resources, skills and offerings to meet the specific needs of geographies outside the "home" or native geography, either directly or through partners, channels and subsidiaries as appropriate for that geography and market.

As Array is seeking geographic expansion and building a wide range of partnerships to enable growth, enterprises should be cautious of support capabilities across all geographies and partners.

Array's main focus is on developing cost-effective high-performance load balancers with less robust support of advanced features, such as traffic management, reporting, scripting and security, as compared with leading vendors, and it has no WAF.

Barracuda Networks

Barracuda Networks has focused its efforts on selling to the WAF buyer. While this has generated revenue, it has largely left Barracuda out of the enterprise ADC market. This is unfortunate, as Barracuda offers an advanced platform (AP) ADC within its WAF. Barracuda is in the process of increasing its focus on the ADC capabilities in its WAF for those interested in ADC functionality. Barracuda is in the process of repositioning its product as an ADC. Consider Barracuda when a low-cost solution or a security-focused solution is the primary requirement.

Strengths

Barracuda Networks has developed a broad reach and is a well-known brand.

The Barracuda Web Application Firewall product contains a solid feature set for ADC and security.

Barracuda offers an aggressively priced small and midsize (SMB)-focused product, in addition to the security-focused ADCs in its enterprise portfolio.

Cautions

The level of investment in the application delivery features is somewhat limited, due to a focus on security features and the lower price points offered by Barracuda. Don't look to Barracuda to innovate (outside of price).

Barracuda's professional services are not as strong as the leading vendors when complex implementations are involved.

Barracuda has yet to integrate load balancer and ADC offerings, making the migration path from its entry-level product to a richer featured product more difficult.

Barracuda's brand for ADCs is not well-known in the large-enterprise market. In fact, it sells a simple load balancer as an ADC, but it has marketed its AP ADC as a WAF, confusing prospects.

Brocade

Brocade is focused on the market for high-performance ADCs for large public websites and wireless data providers. Integration with its enterprise switching and routing products under its Application Resource Broker will increase interest from hosting and infrastructure as a service (IaaS) providers. Brocade is not focused on the general enterprise buyer, although it does have some presence in this market. Consider

Brocade where scalability and high throughput for a somewhat limited ADC feature set is a good match. Brocade delivers performance-oriented, ADC solutions with solid security and IPv4/IPv6 capabilities that scale to the highest performance levels in the market.

Strengths

Brocade delivers performance-oriented, ADC solutions with solid security and IPv4/IPv6 capabilities that scale to the highest performance levels in the market.

Brocade's OpenScript language enables customization while maintaining high and predictable performance.

Brocade remains a strong player in service providers and hosting facilities, which underscores the proven reliability of Brocade's solutions. Brocade's Network Subscription allows organizations to acquire network infrastructure via a monthly subscription, aligning equipment costs with revenue.

Cautions

Brocade is not focused on the feature-driven enterprise buyer that needs integration with off-the-shelf and custom applications. While Brocade will continue to sell to its existing enterprise accounts, development dollars will be focused on the requirements of the service provider and hosting customer base.

Brocade has been slower than the leading vendors to embrace AP ADC features and open APIs for external integration to provide more-extensible capabilities to the ADC. However, recent releases have improved these capabilities.

Brocade has not yet executed on its vision for virtual ADCs, although Brocade has announced its intentions to provide these products.

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Cisco

Cisco is bundling its Application Control Engine (ACE) into larger Cisco solutions — including the Cisco Virtual Data Center solution and Cisco WebEx solutions — to broaden the product's appeal. However, lack of extensive application knowledge and features restricts Cisco's abilities in this market to areas where its multitenant solution and traffic management features meet customer requirements. Although Cisco has added richer management capabilities, its core features remain generations behind the leaders in this market. Cisco recently announced it has ended new hardware development on ACE. Consider ACE only for limited incremental expansion of existing deployments with a goal of moving to a strategic alternative platform as soon as it is practical.

Strengths

Cisco has a large and loyal customer base, combined with a substantial installed base of legacy load-balancing solutions. These customers represent an opportunity for Cisco to sell its newer higher-performance ACE30 load balancers.

Cisco has integrated its ACE products into its virtualized data center offering, which can simplify provisioning and management.

Cisco's focus on bundled solutions will appeal to organizations that do not have sophisticated ADC requirements.

Cisco's ADC features a pay-as-you-grow model that allows customers scalability and a multitenant environment.

Cautions

Cisco has ceased development of new ACE hardware platforms, leaving customers with no clear path into the future.

Based on client feedback, Cisco has demonstrated limited application knowledge, compared with its competitors, making it difficult for the vendor to help enterprises solve complex application deployment problems.

Gartner continues to receive client complaints regarding the instability of ACE's dynamic load-balancing algorithms that has reduced application/website availability.

Cisco's products remain primarily load balancers and continue to fall further and further behind most other vendors, with, for example, no software/virtual machine versions of the product, and this is reflected in its continued market share decline — down to 13.4% in the first quarter of 2012, a decrease from 14.5% in the first quarter of 2011 and 22.4% in the first quarter of 2010.

For organizations that are migrating to a cloud-based approach, Cisco's current product direction, which has remained consistent over the past eight years, will not enable them to maximize the performance, security or agility of their applications and data centers.

Note: On 17 October, Cisco announced a partnership with Citrix that will provide Cisco's next-generation ADC. Gartner will soon publish an Impact Appraisal — "Cisco's Strategic Shift in the ADC Market Brings New Concerns, New Opportunities for ACE Customers" — covering this announcement.

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Citrix Systems

Citrix continues to be one of the three largest ADC vendors in terms of overall revenue, with a strong financial position and an experienced global channel partner program, in which it is good at leveraging its existing customer relationship in server-based computing and hosted virtual desktop (HVD). Strong support of advanced features based on an architectural vision (TriScale) and solid understanding of the application environment. Citrix is an excellent choice for enterprises seeking a user-friendly solution for the broadest set of deployment needs.

Strengths

The innovative TriScale architecture serves as the underpinnings of Citrix's flexible, cost-optimized deployment model. TriScale provides scale-up (pay as you grow), scale-in (device consolidation via multitenancy) and scale-out via clustering.

Citrix has a competent and responsive support organization with global reach.

Citrix has good traffic and application reporting capabilities, along with Secure Sockets Layer (SSL) offload for SSL 2048-bit and 4096-bit key lengths.

Citrix's well-integrated cloud strategy (CloudBridge) incorporates easy-to-configure IPsec VPN, WAN optimization for access to off-premises resources and CloudConnector for acceleration of cloud (IaaS and software as a service [SaaS]) applications.

Cautions

While Citrix has been innovative in making the ADC an architectural platform, there has been less feature innovation, such as asymmetric Web content optimization, which is limited to traditional HTTP and TCP optimization technologies.

Citrix continues to focus on predefined rule templates for ease of use. Although a broad set of rules exist based on specific use cases, this offers less flexible rule setting than programmatic approaches.

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Coyote Point

Coyote Point is smaller but a long-established player in the ADC market, shipping its first ADC products in 1999. Historically focused in the midmarket, Coyote Point has been extending its product range with both larger models for enterprise deployment and smaller models for development and staging environments. Coyote Point should be considered where fully featured ADC functionality is required for midrange enterprise performance needs.

Strengths

Coyote Point products are very attractively priced.

Coyote Point ADCs offer a mature and rich suite of ADC capabilities.

Cautions

Coyote Point currently lacks high-end solutions for the largest ADC deployment needs.

Coyote Point is just starting to deliver virtualized software versions of its ADC products.

Coyote Point's scripting and customization capabilities are currently more limited than those of leading providers in this Magic Quadrant.

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F5

F5 remains the market leader, although it has experienced increased competition during the past 18 months. F5's application life-cycle-focused innovation, centered on iApps, and performance enhancements, including an SPDY gateway, continue to lead the industry, and its broader security and remote access capabilities make the Big-IP/Viprion a powerful, multifunction system. However, the complexity of this system is beyond the capabilities of some of its channel partners and customers to understand. Consider F5 for all ADC requirements, particularly the most demanding, where integration

with application and virtualization environments is critical.

Strengths

F5 is a strong market leader, with a very large share and a strong financial base. VMware's decision to choose F5 as its first ADC partner to integrate vCenter demonstrates the potential leverage enterprises can gain by selecting F5 as a strategic supplier.

F5's internal knowledgebase and understanding of diverse and complex application environments makes it the top choice for complex environments.

F5 has a broad and comprehensive vision, with industry-leading understanding of the needs of application development, deployment and management.

F5's investment in iRules, iControl and iApps, along with its DevCentral portal, results in strong partnerships and a loyal community of customers that would find it difficult to migrate away from F5. Integration with popular integrated development environments (IDEs), such as Eclipse and .NET/Visual Basic, also contributes to customer "stickiness."

Cautions

While F5's TMOS has always contained significant software innovation, F5's continued reliance on new hardware platforms to drive sales and innovation into the market is becoming less appropriate in an increasingly software-centric market.

Continued restrictions on what software options run on lower-end platforms restrict F5's ability to meet requirements for midsize organizations. This has forced some customers to buy more-expensive platforms just to get features, not because they need raw performance.

F5 still lacks a license-based pay-as-you-grow option, which forces some customers to overbuy in the short term to ensure adequate capacity for growth.

Enterprises need to engage with knowledgeable engineering and online resources to ensure they get maximum value from the product offering.

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Radware

Radware offers a broad vision of the role of the ADC and an architecture framework (Virtual Application Delivery Infrastructure [VADI]) that encompasses a range of ADC capabilities, in terms of both product size and functionality. VADI supports scale-up (pay-as-you-grow), device consolidation (virtualized physical appliance) and scale-out (across clusters and multiple data centers). Radware recently added content acceleration features, addressing a previous gap in its offering. Radware offers mission-tailored products in areas such as mobile, security and Session Initiation Protocol (SIP), as well as multifunctional ADC platforms. Radware should be considered for all ADC deployments, particularly when integration of security and monitoring are important.

Strengths

Radware's approach of running a separate virtual machine (which can run on Radware or industry standard hardware), for each application instance, allows great flexibility, supportability and

scalability in ADC deployments. Virtual ADCs can be scaled on demand and migrated as needed across a Radware application delivery fabric.

Radware offers investment protection via a guarantee that any platform purchased will support all software releases for a minimum of five years. This minimizes the concern that a customer will be forced into an unplanned upgrade to obtain critical features in a new software release.

Radware offers comprehensive application performance analysis and reporting capabilities and is certified with all major applications.

Security remains a strong point in Radware's ADC offerings that include real-time Attack Mitigation System (AMS), DefensePro (distributed denial of service [DDoS] protection and intrusion prevention system), AppWall (WAF) and APSolute Vision management console.

Cautions

While Radware has preconfigured templates for major applications (such as those from Microsoft, Oracle and SAP), its scripting capabilities for customizing ADC behavior for other applications are less-well-developed than those of some of the leading vendors in this Magic Quadrant.

Radware's routes to market are not as strong globally as those of its leading competitors.

Radware's failure to allocate adequate resources to marketing is resulting in a good message about a strong product not being heard and, therefore, limiting Radware's ability to influence the market and to grow the company.

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Riverbed

Riverbed has entered this market by acquiring ADC vendor Zeus and Web page optimization vendor Aptimize, to form its Stingray product line. These products have been added to Riverbed's existing portfolio of WAN and storage optimization and performance monitoring and reporting products, to help Riverbed fulfill its vision of a comprehensive approach to application performance management. Riverbed's strong go-to-market capabilities should increase the visibility, sales coverage and support availability for these products. Riverbed recently announced that it has licensed its Stingray code to Juniper Networks, which should allow Riverbed to address additional markets, such as network-centric buyers and the network service provider infrastructure market. Riverbed should be considered for ADC opportunities where a software-based implementation is preferred, particularly in a highly virtualized data center and when moving to a DevOps approach to application life cycle management.

Strengths

Riverbed has a strong long-term vision of managing application performance across a wide range of deployment scenarios.

The Stingray products offer a rich set of ADC capabilities, including fully featured content optimization from the Aptimize products.

As one of the few ADCs that was created as a purely software product, the Stingray product has a flexible range of deployment options, including both public and private clouds.

The pure software-based Stingray ADC (not just a virtual machine [VM]) is well-suited to the

DevOps approach of attaching services to applications rather than linking to appliances or VMs.

Cautions

Clients report that Riverbed ADCs can be expensive.

Not all of Riverbed's channels have been trained on the Stingray products, and some may lack the appropriate skills to support this product line. Ensure that Riverbed and its local channel partners have the resources to support your ADC requirements.

The Stingray product family is pure software products, and appliance versions of the products are not available. While some organizations prefer the flexibility of this approach, others prefer the simplicity of a physical appliance.

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Sangfor

Sangfor is a Chinese vendor founded in 2000 with an initial focus on security. Its ADC, Sangfor AD, was launched in 2009. Its ADC market focus so far has been on the Chinese market, with feature support mainly focused on basic load balancing, combined with security features. Sangfor is now increasing focus outside of China and establishing offices in several Asian countries, where it is taking advantage of its established security channel partners. The Sangfor AD is a good choice for price-sensitive enterprises in Asia mainly seeking load balancing combined with security.

Strengths

Sangfor was established in the Chinese market with an established support organization. It now is focusing on establishing market presence in the wider Asian market, building on its existing security presence.

Sangfor has a good range of security features, such as DDoS protection, ARP attack protection, support of standard access control list (ACL) features, extended ACL features and other security functions.

Sangfor has a broad range of appliances sold with a simple all-inclusive licensing structure, in which the only additional optional feature is its Unilateral Acceleration.

Cautions

Compared with the leading vendors, Sangfor has limited scalability and a more narrow feature set that is specifically targeted at the Chinese midmarket requirements. As a late entrant to the ADC market, it is still attempting to catch up to the global market leaders.

As Sangfor is expanding outside of China, enterprises should be cautious of the experience of its partners, as the ADC may be a new solution area for these partners.

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Strangeloop

Strangeloop was an early visionary in on-the-fly asymmetrical optimization of Web content. It is a specialist Web page optimization vendor offering optimization for both fixed and mobile Web delivery. It offers appliance, software and cloud services delivery options and separate packaging for its mobile optimization features. Strangeloop should be considered, in conjunction with ADCs, in cases in which the highest level of Web page performance optimization is required.

Strengths

Strangeloop provides a very high degree of Web page optimization. It delivers highly optimized browser-specific capabilities that can be especially valuable for public-facing sites, such as e-commerce sites, in which improved performance translates to significantly higher revenue.

Strangeloop provides specific optimization for delivering content to mobile devices that are often bandwidth- and latency-constrained. As the mobile device becomes a preferred platform to access premium content, absolute performance becomes a critical concern.

Strangeloop has very clear marketing messages regarding the business benefits of faster Web page delivery.

Cautions

The Strangeloop Site Optimizer is often deployed together with an ADC, making this an expensive approach, especially as more ADC vendors add Web page optimization to their ADC feature sets.

Strangeloop is a relatively small company and has limited worldwide distribution, although its cloud and software delivery options go some way to offsetting this limitation.

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Vendors Added or Dropped

We review and adjust our inclusion criteria for Magic Quadrants and MarketScopes as markets change. As a result of these adjustments, the mix of vendors in any Magic Quadrant or MarketScope may change over time. A vendor appearing in a Magic Quadrant or MarketScope one year and not the next does not necessarily indicate that we have changed our opinion of that vendor. This may be a reflection of a change in the market and, therefore, changed evaluation criteria, or a change of focus by a vendor.

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Added

The following three vendors were added to this Magic Quadrant: Riverbed, which acquired Zeus and Aptimize; Coyote Point; and Sangfor.

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Dropped

ActivNetworks did not meet minimum revenue requirements and is now primarily focused on wireless

service providers.

Zeus and Aptimize were acquired by Riverbed.

Crescendo Networks ceased operations.

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Inclusion and Exclusion Criteria

Criteria for inclusion in the ADC Magic Quadrant include the vendor's ability to:

   Release products for general availability and demonstrate commitment to this market

   Deliver solutions directly to the enterprise market or indirectly through service-provider-bundled solutions

   Demonstrate relevance to Gartner clients via achievement of a minimum of 1% market share

Note that, while they did not meet the revenue inclusion criteria, ActivNetworks, jetNEXUS and Kemp Technologies provide ADCs that may suit particular buyers' needs.

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Evaluation Criteria

Ability to Execute

We analyze the vendor's capabilities across broad business functions. Vendors that have expanded their products across a wider range of protocols and applications, improved their service and support capabilities, and focused on improving enterprise applications will be more highly rated in the Magic Quadrant analysis.

Product/Service evaluates the capabilities of the products or solutions offered to the market. Key items to be considered for the application delivery market are how well the products address enterprise application needs, the breadth of the products (in terms of different functions) and how well they scale — from entry-level products to high-end products and features. Support for virtual ADCs and virtualized ADC platforms, as well as support for cloud requirements, including elasticity and orchestration, is considered important. A key aspect that demonstrates continued execution in this area is how the vendor expands the types of applications that are optimized.

Overall Viability (Business Unit, Financial, Strategy, Organization) includes an assessment of the organization's financial health, the financial and practical success of the business unit, and the likelihood that the individual business unit will continue to invest in the product, offer the product and advance the state of the art in the organization's product portfolio.

Sales Execution/Pricing looks at the vendor's ability to get the product into the market efficiently. In

this market, we look for specialist capabilities — that is, a vendor and associated channels that understand and deliver solutions for optimizing a range of data center applications. In this market, pricing is an important decision criterion. As the market matures and expands to include SMBs, customer pricing will become more important. Additionally, we expect global distribution and support to serve large-enterprise accounts.

Market Responsiveness and Track Record focuses on the vendor's capability to respond, change direction, be flexible and achieve competitive success as opportunities develop, competitors act, customer needs evolve and market dynamics change. This criterion also considers the provider's history of responsiveness.

Marketing Execution measures the clarity, quality, creativity and efficacy of programs that are designed to deliver the organization's message to influence the market, promote the brand and business, increase awareness of the products, and establish a positive identification of the product/brand and organization in the minds of buyers. This mind share can be driven by a combination of publicity, promotions, thought leadership, word of mouth and sales activities.

Customer Experience looks at a vendor's capability to deal with postsales issues. Because of the specialized nature of the application delivery market, and the impact of product bugs on an enterprise's capability to conduct critical business functions, vendors are expected to escalate and respond to issues in a timely fashion with dedicated and specialized resources, and to have detailed expertise in many specific application environments. Another consideration is a vendor's capability to deal with increasing global demands. Additional support tools and programs are indications of a maturing approach to the market.

Operations looks at the organization's capability to meet its goals and commitments. Factors include the quality of the organizational structure, including skills, experiences, programs, systems and other vehicles that enable the organization to operate effectively and efficiently on an ongoing basis.

Ability to Execute reflects the market conditions and, to a large degree, it is our analysis and interpretation of what we hear from the market. Our focus is assessing how a vendor participates in the day-to-day activities of the market (see Table 1).

Table 1. Ability to Execute Evaluation Criteria

Evaluation Criteria	Weighting
Product/Service	High
Overall Viability (Business Unit, Financial, Strategy, Organization)	Standard
Sales Execution/Pricing	Standard
Market Responsiveness and Track Record	Standard
Marketing Execution	Standard

Evaluation Criteria	Weighting
Customer Experience	High
Operations	Low

Source: Gartner (October 2012)

Completeness of Vision

These criteria have been fine-tuned to reflect the expanding use of these technologies in the enterprise.

Market Understanding looks at the technology provider's capability to understand buyers' needs, and to translate those needs into products and services. Vendors that show the highest degree of vision listen to and understand buyers' wants and needs, and can shape or enhance those wants and needs with their added vision. An example of the expectations in this category is how vendors have enhanced their portfolios to address new application environments.

Marketing Strategy examines the messages and methods that vendors use to disseminate their messages. Are they clear and differentiated? Are they consistently communicated throughout the organization, and externally through the website, advertising, customer programs and positioning statements?

Offering (Product) Strategy looks at a vendor's product road map and architecture, which we map against our view of enterprise requirements. We expect product direction to focus on optimizing enterprise application performance and security. Specific technologies may include connection management, security enforcement, application enhancements, and emerging solutions for enterprise WAN deployment and related technologies. The timely incorporation of new application architectures — such as service-oriented architecture (SOA), Web services, Ajax, SIP, virtual ADCs and orchestration — also contributes to this score.

Business Model assesses a vendor's approach to the market. Does the vendor have an approach that enables it to scale the elements of its business (for example, development, sales/distribution and manufacturing) cost-effectively, from startup to maturity? Does the vendor understand how to leverage key assets to grow profitably? Can it gain additional revenue by charging separately for optional, high-value features? Other key attributes in this market would be reflected in how the vendor uses partnerships to increase sales. The ability to build strong partnerships with a broad range of application vendors and associated system integrators demonstrates leadership.

Innovation measures a vendor's ability to move the market into new solution areas, and to define and deliver new technologies. In the application delivery market, innovation is key to meeting rapidly expanding requirements and to keeping ahead of new (and often more-agile) competitors.

Geographic Strategy looks at a vendor's strategy to deliver its offerings across different geographic markets globally, including go-to-market strategy, and any adaptations of the offer required to address different markets, such as differences in scalability or security certifications.

Completeness of Vision distills a vendor's view of the future, the direction of the market and the

vendor's role in shaping that market. We expect the vendor's vision to be compatible with our view of the market's evolution. A vendor's vision of the evolution of the data center and the expanding role of ADCs in an SOA/cloud environment are important criteria. In contrast with how we measure Ability to Execute criteria, more of the rating for Completeness of Vision is based on direct vendor interactions, and on our analysis of the vendor's view of the future (see Table 2).

Table 2. Completeness of Vision
Evaluation Criteria

Evaluation Criteria	Weighting
Market Understanding	High
Marketing Strategy	Low
Sales Strategy	No Rating
Offering (Product) Strategy	High
Business Model	Standard
Vertical/Industry Strategy	No Rating
Innovation	High
Geographic Strategy	Low

Source: Gartner (October 2012)

Quadrant Descriptions

Leaders

A Leader exhibits the ability to shape the market by introducing additional capabilities in its product offerings, and by raising awareness of the importance of these features. Key capabilities for a Leader revolve around the AP ADC capabilities that focus on enterprise application capabilities. We expect a Leader to have strong or growing market share, especially in the AP ADCs, and to have solutions that resonate with an increasing number of enterprises. Expertise in complex data center application deployment is also necessary to be a Leader in the Magic Quadrant for ADCs.

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Challengers

A Challenger in this market is a follower from a product or innovation perspective, but it has demonstrated the capability to take its products into the market and show their relevance to a wide audience.

Visionaries

Visionaries are vendors that have provided key innovative elements that illustrate the future of the market. However, they lack the capability to influence a large portion of the market; they haven't expanded their sales and support capabilities on a global basis; or they lack the funding to execute with the same capabilities as a vendor in the Leaders quadrant. Examples of innovation include the ability to deal with XML traffic or to be an early developer of Web content optimization capabilities.

Niche Players

Niche Players provide more-limited capabilities or geographic focus and haven't demonstrated enough vision or focused execution to warrant a stronger position in our analysis.

Context

The key criterion in this Magic Quadrant focuses on the vendor's ability to provide products and services that solve complex application deployment challenges. Success in this market goes beyond features. It involves a deep understanding of how the elements of applications perform across the network.

Market Overview

The market for data-center-based solutions to optimize the delivery of applications across the network continues to develop, and our expectations increase with each revision of this Magic Quadrant. As a result, the Magic Quadrant axis depicts a shift up and to the right with each revision. Consequently, vendors must progress to maintain their positions in each new Magic Quadrant.

The ADC market provides asymmetrical solutions to improve the performance, efficiency, deployment and security of a wide range of applications. New use cases of the ADC technology continue to emerge, reflecting significant innovation in the market. These technologies apply across a growing base of enterprise applications that may use the Internet, or may have little or no roots in Internet and browser-based technologies. This market continues to be highly innovative, with not only larger vendors included in this Magic Quadrant participating, but also smaller vendors not included in this Magic Quadrant but participating in the ADC market and often focusing on specific market segments, such as ActivNetworks (wireless service providers and video optimization), Kemp (SMB market focus) and Piolink (South Korea market focus).

Although the market emerged from load-balancing solutions designed to improve the availability and reliability of websites, load balancing and SSL termination for basic HTML traffic are not, by themselves,

sufficient to qualify products as ADCs. The range of functionality offered by ADCs continues to grow and can include some or all of the following:

- Layers 4 through 7 (L4-7) redirection and load balancing and failover
- TCP connection multiplexing
- Server offload (for example, SSL termination and TCP connection management)
- Data compression
- Network-address translation (NAT)
- Network-level security functions, distributed denial-of-service protection and server cloaking
- Selective compression
- Caching
- Content transformation and rewrite
- Application firewall
- Transaction assurance
- Rules and programmatic interfaces
- HTML (and other application protocol) optimizations — perfecting, selective encoding and so forth
- XML validation and transformation
- Virtualization
- Bidirectional and stateful application proxy
- IPv6 to IPv4 gateway functions

There are two broad categories of ADCs. Basic ADCs operate on a per-packet or per-flow basis and are focused primarily on improving application availability, through the use of L4-7 redirection, SSL offload, NAT and basic network-level security functions. Other than L7 redirection, most functions of a basic ADC are based on L3 (network layer) functionality. In contrast, AP ADCs operate on a full-layer L4-7, per-transaction basis, delivering a broader range of functionality and achieving full application fluency.

ADCs can be key components of diverse environments, such as portals, ERP systems, Microsoft Outlook and Office Communications Server (OCS), control points for virtualization, adjuncts to enterprise service buses (ESBs) or a service within SOA, and, increasingly, as an element of application development environments.

ADCs are delivered in multiple form factors today — physical, virtualized physical and virtual (and, in some cases — notably, Riverbed — as pure software). Tight integration with data center automation suites is becoming common to automate provisioning and increase data center agility. Software-defined networking (SDN) will automate provisioning of the L2/L3 network. These networks must be linked to upper-layer services such as ADCs. This mapping of SDN-managed physical ports to service platforms will most likely be done by higher-level automation applications.

Most AP ADCs incorporate rule-based extensibility that enables customers to customize the behavior of

their AP ADCs. In addition, many AP ADCs incorporate programmatic control interfaces — open APIs — that enable them to be controlled by external systems, including application servers, data center management and provisioning applications (orchestration), and network and system management applications.

An important emerging role for ADCs is in providing a protocol gateway between IPv4 and IPv6, allowing IPv6-based users, predominantly on the public Internet, to access websites that support only IPv4.

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