Beyond the ADC: Citrix Redefines Application Delivery for the Cloud Era
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IDC's Quick Take
For the second straight year, networking assumed a prominent profile at the Citrix Industry Analyst Meeting in Santa Clara, California. Citrix executives see a bright future for networking and application delivery and, by association, the NetScaler portfolio. As we move into an era that is increasingly defined by far-reaching digital transformation, cloud, and IoT, Citrix contends that application delivery extends from the datacenter all the way to the enterprise edge. It must include application delivery controllers (ADCs) of various form factors (physical, virtual, containerized, and distributed) in the datacenter to support the diversity of applications, as well as SD-WAN solutions that address the WAN-transformation requirements of the enterprise branch, plus application and data delivery for IoT.

Event Highlights
At its 2016 Industry Analyst Meeting in Santa Clara earlier this month, Citrix issued a somewhat provocative assertion. Citrix, long a vendor of ADCs with its NetScaler product portfolio, declared that the traditional ADC was at a crossroads and must adapt significantly to remain relevant in a market roiled by change and disruption.

Perhaps not surprisingly, Citrix cited digital transformation and cloud as the principal disruptors putting the venerable ADC’s relevance in question. In Citrix’s view, developers are gaining primacy in many enterprises and they’re demanding disaggregated IT models, including network disaggregation in the form of composable network functions. Developers also favor distributed application environments, automated provisioning, and scale-out infrastructure that can encompass multiple datacenters. They also want flexibility and fluidity in the processes and technologies they adopt, including applications that run on bare metal and in virtualized or containerized environments, in addition to running as a service in the cloud.

While traditional client-server IT will be with us for a while, Citrix emphasizes that the traditional ADC cannot accommodate the new “born in the cloud” applications, whether they be cloud based or the coming wave of microservices built with containers. While Citrix believes the traditional ADC is at risk, it also realizes that application delivery is still a growing concern and a key growth area if you take a broader end-to-end view of application delivery. Citrix has ambitious growth objectives for its NetScaler networking portfolio, which encompasses its well-established NetScaler ADC product portfolio as well as network gateways and the company’s relatively new foray into software-defined WAN (SD-WAN).

Indeed, by 2020, Citrix would like to see its NetScaler family support 500,000 total instances, four times more than it has accrued to date.

NetScaler strategic objectives include expanding overall share in the ADC, gateway, and SD-WAN markets; differentiating and expanding with adjacent cloud-based network and security services; pushing into the cloud, MSP, and telco segments; and moving into network and security services for IoT applications with what the company describes as an event delivery controller (EDC).
Citrix says NetScaler’s competitive advantage is derived from the product portfolio’s broad mandate, which addresses the needs of branch employees, mobile employees, Internet consumers, and applications and “things.” As noted, this encompasses NetScaler’s full networking portfolio, extending from ADCs to gateway and now to SD-WAN. To be sure, Citrix is making the case that ADCs and SD-WAN solutions are not only complementary but that together they confer competitive advantage. In this regard, Citrix contends that application delivery must extend beyond ADCs.

While ADCs continue to provide considerable value in the datacenter as SDN-enabled architectures take center stage, the enterprise branch and the WAN is undergoing its own transformation. The focus on application experience, coupled with the insatiable need for bandwidth, has led to the emergence of SD-WAN. Citrix emphasizes that it is the only vendor in the market that combines SD-WAN and ADCs in its product portfolio. The company also notes that the NetScaler product family shares a single code base, a consistent feature set, and consistent management and APIs.

**IDC’s Point of View**

Citrix is taking an aggressive posture in its embrace of cloud and cloud-native technologies, having been relatively early with its virtual ADC platforms and, more recently, its move toward containers. In the NetScaler CPX, Citrix claims it provided the industry’s first full-featured ADC in a Docker container. It also has sought to ensure that its ADC technology is available on the leading public clouds, including AWS and Microsoft Azure.

As the number 2 vendor in the ADC market, Citrix has eagerly assumed the role of the forward-looking challenger, responding early and strongly to the rise of DevOps and to the ascent of containers and microservices. In lockstep, Citrix has ensured that it is positioned to address customer requirements associated with hybrid and multicloud application environments.

Perhaps most provocative is Citrix’s assertion that the combination of ADC, gateway, and SD-WAN will prove compelling to enterprises and will confer competitive advantage relative to other vendors in the marketplace. If Citrix's positioning of end-to-end application delivery holds and its NetScaler portfolio gains market share across those segments, the repercussions across the networking industry will be significant.

Although vendors have previously attempted — with limited success — to position and package interrelated synergies between WAN optimization and ADC offerings, Citrix is the first to claim that the integrated combination of ADC and SD-WAN will prove irresistible in the cloud era. If enterprises buy that proposition, then the market implications will be profound, with partnerships and even potential M&A activity between vendors of ADCs and SD-WAN solutions.

Much, of course, depends on whether the alchemy between ADCs and SD-WAN proves fruitful. Citrix believes that the emergence of the “software-defined perimeter” makes the combination of the technologies inevitable. In Citrix’s view, comprehensive application and data delivery spanning the software-defined perimeter provides a superior security model through unified policy, extensive visibility, cloud-delivered simplicity, and complete premises-like control from the datacenter out across the WAN to the branch and to other endpoints, including those associated with IoT applications.

Given the broad application delivery canvas, it’s no surprise that control, management, and analytics feature so prominently in the overall vision. For Citrix, its NetScaler Management and Analytics (MAS) —
which includes provisioning, configuration, orchestration, visibility, analytics, and machine learning — is seen as a linchpin of its application delivery ambitions. Within the multicloud context, NetScaler Cloud Services also play an integral part, encompassing network services (application discovery, global server load balancing, etc.) as well as application security capabilities such as DDoS, application firewall, and encryption.

With an ever-increasing presence in workspace services — and a more recent focus on cloud services that includes several cloud partnerships, including with Microsoft Azure — there is now no doubt that networking and NetScaler are increasingly important fixtures in Citrix’s cloud-forward strategy. Considerable thought has gone into Citrix’s positioning and fusing of its NetScaler product portfolio, and we’ll see how well Citrix executes and how readily customers respond to the message. An audience that extends well beyond Citrix and its installed base of desktop and mobile customers, as well as its service provider partners, will carefully monitor its application delivery progress.

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