Application delivery controller

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[Jump to navigation](https://en.wikipedia.org/wiki/Application_delivery_controller#mw-head)[Jump to search](https://en.wikipedia.org/wiki/Application_delivery_controller#searchInput)

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An **application delivery controller** (**ADC**) is a [computer network](https://en.wikipedia.org/wiki/Computer_network) device in a [datacenter](https://en.wikipedia.org/wiki/Datacenter), often part of an [application delivery network](https://en.wikipedia.org/wiki/Application_delivery_network) (ADN), that helps perform common tasks, such as those done by [web accelerators](https://en.wikipedia.org/wiki/Web_accelerator) to remove load from the [web servers](https://en.wikipedia.org/wiki/Web_server) themselves. Many also provide [load balancing](https://en.wikipedia.org/wiki/Load_balancing_(computing)). ADCs are often placed in the [DMZ](https://en.wikipedia.org/wiki/DMZ_(computing)), between the outer [firewall](https://en.wikipedia.org/wiki/Firewall_(computing)) or router and a [web farm](https://en.wikipedia.org/wiki/Web_farm).



**Contents**

* [1Features](https://en.wikipedia.org/wiki/Application_delivery_controller#Features)
* [2History](https://en.wikipedia.org/wiki/Application_delivery_controller#History)
* [3Market](https://en.wikipedia.org/wiki/Application_delivery_controller#Market)
* [4References](https://en.wikipedia.org/wiki/Application_delivery_controller#References)

Features[[edit](https://en.wikipedia.org/w/index.php?title=Application_delivery_controller&action=edit&section=1)]

[[*citation needed*](https://en.wikipedia.org/wiki/Wikipedia:Citation_needed)] A common misconception is that an Application Delivery Controller (ADC) is an advanced load-balancer. This is not an adequate description. An ADC is a network device that helps applications to direct user traffic in order to remove the excess load from two or more servers. In fact, an ADC includes many OSI layer 3-7 services which happen to include load-balancing. Other features commonly found in most ADCs include IP Traffic Optimization, Traffic Chaining/Steering, SSL offload, Web Application Firewall, CGNAT, DNS System, and proxy/reverse proxy to name a few. They also tend to offer more advanced features such as content redirection as well as server health monitoring. In the context of Telco Infrastructure, ADC could provide services for Gi-LAN area.[[*citation needed*](https://en.wikipedia.org/wiki/Wikipedia:Citation_needed)]

History[[edit](https://en.wikipedia.org/w/index.php?title=Application_delivery_controller&action=edit&section=2)]

First generation ADCs, starting around 2004, offered simple application acceleration and [load balancing](https://en.wikipedia.org/wiki/Load_balancing_(computing)). In 2006, ADCs began to mature when they began featuring advanced applications services such as [compression](https://en.wikipedia.org/wiki/Data_compression), [caching](https://en.wikipedia.org/wiki/Caching_(computing)), [connection multiplexing](https://en.wikipedia.org/wiki/Multiplexing), [traffic shaping](https://en.wikipedia.org/wiki/Traffic_shaping), [application layer security](https://en.wikipedia.org/wiki/Application_firewall), [SSL offload](https://en.wikipedia.org/wiki/SSL_acceleration) and [content switching](https://en.wikipedia.org/wiki/Content_switch#Layer_4-7_switch,_web-switch,_content-switch) combined with services like server [load balancing](https://en.wikipedia.org/wiki/Load_balancing_(computing)) in an integrated services framework that optimized and secured business critical application flows.

Application acceleration products were available from many companies by 2007.[[1]](https://en.wikipedia.org/wiki/Application_delivery_controller#cite_note-1) [Cisco Systems](https://en.wikipedia.org/wiki/Cisco_Systems) offered application delivery controllers, until leaving the market in 2012. Market leaders like [F5 Networks](https://en.wikipedia.org/wiki/F5_Networks), [Radware](https://en.wikipedia.org/wiki/Radware) and [Citrix](https://en.wikipedia.org/wiki/Citrix) had been gaining market share from Cisco in previous years.[[2]](https://en.wikipedia.org/wiki/Application_delivery_controller#cite_note-eweek1-2)

The ADC market segment became fragmented into two general areas: 1) general network optimization and 2) application/framework specific optimization. Both types of devices improve performance, but the latter is usually more aware of optimization strategies that work best with a particular application framework, focusing on [ASP.NET](https://en.wikipedia.org/wiki/ASP.NET) or [AJAX](https://en.wikipedia.org/wiki/AJAX) applications, for example.[[3]](https://en.wikipedia.org/wiki/Application_delivery_controller#cite_note-3)

Market[[edit](https://en.wikipedia.org/w/index.php?title=Application_delivery_controller&action=edit&section=3)]

In 2005, a market research firm estimated the ADC market at US$727 million, with major vendors including [F5 Networks](https://en.wikipedia.org/wiki/F5_Networks) and [Cisco Systems](https://en.wikipedia.org/wiki/Cisco_Systems).[[4]](https://en.wikipedia.org/wiki/Application_delivery_controller#cite_note-4) In 2012, [Cisco Systems](https://en.wikipedia.org/wiki/Cisco_Systems) lost market share to its competitors[[2]](https://en.wikipedia.org/wiki/Application_delivery_controller#cite_note-eweek1-2). [F5](https://en.wikipedia.org/wiki/F5_Networks) has since gone on to become the market leader within the ADC space.

In 2015, [Brocade Communications Systems](https://en.wikipedia.org/wiki/Brocade_Communications_Systems) acquired the SteelApp business unit of Riverbed Technologies, Inc. to expand on its ADC offerings and consolidate its position in the Software Defined Data Center/Software Defined Network arena. Brocade renamed SteelApp to Brocade Virtual Traffic Manager (aka VTM).[[5]](https://en.wikipedia.org/wiki/Application_delivery_controller#cite_note-5)[[6]](https://en.wikipedia.org/wiki/Application_delivery_controller#cite_note-6)

In 2016, [Webscale](https://en.wikipedia.org/wiki/Webscale) launched their Cloud-based Application Delivery Platform, with the included software-defined ADC to integrate seamlessly with the application and utilize cloud infrastructure to improve performance, availability and security[[7]](https://en.wikipedia.org/wiki/Application_delivery_controller#cite_note-7)

References[[edit](https://en.wikipedia.org/w/index.php?title=Application_delivery_controller&action=edit&section=4)]

* 1. [**^**](https://en.wikipedia.org/wiki/Application_delivery_controller#cite_ref-1) *Ann Bednarz (July 3, 2007).*[*"Gear makers bundle network optimization features"*](http://www.networkworld.com/newsletters/accel/2007/0702netop1.html)*. Network World. Retrieved May 26, 2013.*
  2. ^ [Jump up to:***a***](https://en.wikipedia.org/wiki/Application_delivery_controller#cite_ref-eweek1_2-0) [***b***](https://en.wikipedia.org/wiki/Application_delivery_controller#cite_ref-eweek1_2-1) *Jeffrey Burt (September 20, 2012).*[*"Cisco Ending ADC Business, Ceding Market to F5, Citrix, Riverbed –"*](http://www.eweek.com/c/a/Enterprise-Networking/Cisco-Ending-ADC-Business-Ceding-Market-to-F5-Citrix-Riverbed-198757/)*. eweek.com. Retrieved June 27, 2013.*
  3. [**^**](https://en.wikipedia.org/wiki/Application_delivery_controller#cite_ref-3) *Sean Michael Kerner (May 1, 2008).*[*"Applications And Networks Need to Unite"*](http://www.internetnews.com/infra/article.php/3744311/Interop+Applications+And+Networks+Need+to+Unite.html)*. InternetNews.com.*[*Archived*](https://web.archive.org/web/20080505080358/http:/www.internetnews.com/infra/article.php/3744311/Interop%2BApplications%2BAnd%2BNetworks%2BNeed%2Bto%2BUnite.htm)*from the original on May 5, 2008. Retrieved May 26, 2013.*
  4. [**^**](https://en.wikipedia.org/wiki/Application_delivery_controller#cite_ref-4) *Paula Musich (April 3, 2006).*[*"Application Acceleration Market Hits $1.2B"*](http://www.eweek.com/c/a/Infrastructure/Application-Acceleration-Market-Hits-12B)*. eWeek. Retrieved May 26, 2013.*
  5. [**^**](https://en.wikipedia.org/wiki/Application_delivery_controller#cite_ref-5) [*"Brocade acquires Riverbed ADC to bolster virtual delivery services"*](http://www.networkworld.com/article/2881173/sdn/brocade-acquires-riverbed-adc-to-bolster-virtual-delivery-services.html)*.*
  6. [**^**](https://en.wikipedia.org/wiki/Application_delivery_controller#cite_ref-6) [*"APPLICATION DELIVERY CONTROLLERS"*](http://www.brocade.com/en/products-services/application-delivery-controllers.html)*.*
  7. [**^**](https://en.wikipedia.org/wiki/Application_delivery_controller#cite_ref-7) [*"CLOUD ADC"*](https://www.webscalenetworks.com/2015/10/01/lagrange-systems-disrupts-traditional-application-delivery-controllers-cloud-service-allowing-proactive-infinite-scaling-web-scale-application-servers-2/)*.*

A virtualized Gi LAN solution from F5 helps you build a cost-effective model, allowing for faster time to market for new services and less network complexity. <https://www.f5.com/services/resources/use-cases/virtual-gi-lan>