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VENDOR PROFILE

A10 Networks: Datacenter Networking Profile

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IDC OPINION

The market for datacenter Layer 4–7 switches is continually increasing and is believed to be the critical foundation for the next-generation datacenter. The total worldwide market for datacenter Layer 4–7 switching reached $932.3 million in 2006 and is expected to increase at a compound annual growth rate of 5% through 2011 to reach $1.2 billion by 2011. The revenue to be gained in this market will continue in support of new Web 2.0, voice, video, and service oriented architecture (SOA) applications. The vendor in this market will continue to be dynamic. New platforms will enter the market to handle the high-performance requirements of the largest service providers and enterprise datacenters. Key findings in this study include:

- A10 is a relative newcomer to the datacenter Layer 4–7 switch market, currently dominated by Cisco and F5 Networks. The company plans to differentiate its strategy based on a supercomputing architecture especially tuned for multicore, and multi-CPU hardware platforms.
- A10 Networks' product line is focused on datacenter switching and management, bandwidth management and user identity management.

IN THIS VENDOR PROFILE

This IDC Vendor Profile provides an overview of A10 Networks Corp. A10 is a rising participant in the Layer 4–7 switching market. This study reviews A10's opportunities and challenges as it and other vendors compete for growing market share within global application networking.

SITUATION OVERVIEW

Today's decentralized and mobile organizational models demand data availability, performance, scalability, and security across their networks. Critical business applications require fast and secure response while maintaining the availability of information among datacenters, branch offices, and mobile users. These needs are no longer those of only large enterprises. Medium-sized organizations are also facing application delivery requirements. Central datacenters and IT managers are looking to have control over the network while providing users adequate tools to manage their individual needs. IT managers are demanding an ever-increasing need for customization to control and distribute network traffic.

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Layer 4–7 switch product vendors will benefit from the following market trends as they continue to improve network performance security, centralized control and management, and end-user experience and autonomy:

- Pervasiveness of the network-based business
- Continued deployment of mission-critical Web applications
- Multilayered approach to security
- Control of Web traffic to meet corporate and regulatory requirements
- Management and maximization of available bandwidth

With these points in mind, A10 Networks provides product lines to manage and accelerate applications across the network while allowing for end-user self-service. This level of autonomy is further controlled by identity-based reporting appliances.

Company Overview

A10 Networks was founded in 2004 by a former cofounder of Foundry Networks and Centillion Networks, Lee Chen. A10 is a venture-funded, privately held technology company. The total funding thus far is $16 million. A10 is headquartered in San Jose, California, in the Silicon Valley, with offices in the United States, Japan, China, and Taiwan. The company employs approximately 100 people worldwide, with development centers in San Jose and China.

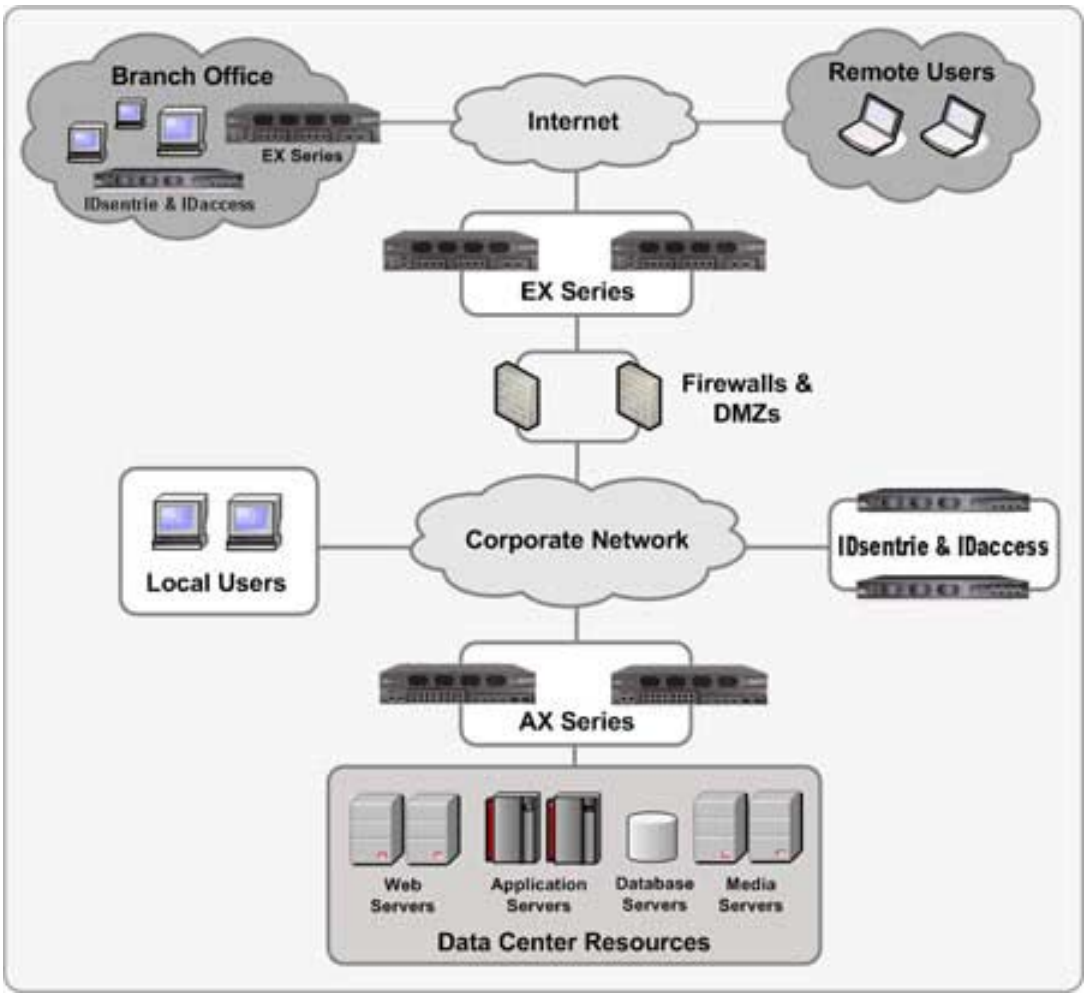
Company Strategy

Product Strategy

A10 Networks' AX Series, EX Series, and ID Series products address network, security, and identity management problems affecting corporations of all sizes. A10 solutions are appliances engineered to deliver acceleration, identification, and visibility to network activities. The AX Series is a server load balancer, allowing ISPs and enterprises to provide application availability. The EX Series is a bandwidth management appliance with identity-based reporting. It helps organizations secure, optimize, and scale their network by managing bandwidth and traffic with user visibility. The ID Series provides network identity management, password management, and guest access and authentication services. (See Figure 1.)

FIGURE 1

A10 Networks Diagram



Source: A10 Networks, 2007

Product/Service Offerings

Performance

The AX Series Application Acceleration switch and EX Series Secure WAN Manager products were introduced in January 2007. The products are based on A10's Advanced Core Operating System (ACOS). ACOS is a high-performance linear processing operating system that is the foundation of the AX and EX product lines and runs on multicore multi-CPUs.

A10 Networks' AX Series is a load balancing application acceleration switch. Key characteristics include the ACOS platform tuned for multiple CPUs and multiple cores. ACOS provides for the distribution of tasks, providing improved scaling and increased efficiency in the datacenter. ACOS works with the aRule custom scripting

technology and policy editor to allow for customization of features. This capability is essential because it allows for the definition of sophisticated custom rules to control the environment. Other significant features include:

- Support for IPv4 and IPv6
- Reduction of HTTP bandwidth requirements
- SSL and Layer 4–7 protocol optimization
- Switch/route ASIC, SSL acceleration ASIC, and Flexible Traffic ASIC
- Localized GUI for different countries

The AX 2000 and the AX 2100 are recent entry-level additions to the AX Series, complementing the existing AX 2200, AX 3100, and AX 3200. Both the Series 2000 and Series 2100 models are 2U appliances. The AX 2000 has two CPUs, 2GB of memory, eight Gigabit copper ports, two Gigabit fiber ports, and an 80GB hard drive. The AX 2100 has four CPUs, 2GB of memory, eight Gigabit copper ports, four Gigabit fiber ports, and dual 80GB Raid 1 hard drives.

The AX Series recently won Best of Interop Las Vegas 2007 in the Application and Networks category, and Best of Interop Tokyo 2007 in the Network Infrastructure category.

Manageability and Control

The EX Series is a bandwidth management appliance with user identity reporting that combines Internet and WAN management features such as link load balancing, firewall load balancing, cache server redirection, server load balancing, and site-to-site compression with traffic shaping, rate limiting, quality of service (QoS), and network-level attack protection. Based on the ACOS architecture, the EX Series provides over 2Gbps of managed traffic. The EX Series utilizes redundant hot swappable hard drives, advanced power supplies, and fans to provide failover protection and uninterruptible service.

Security and Identity Management

The first product delivered to the market by A10 Networks was IDsentrie in November 2005, the first network identity management appliance on the market. IDsentrie is now augmented by IDaccess, an authentication and guest access appliance, to create the ID Series product line.

IDsentrie is a 1U/2U network identity management appliance with instant user identity resolution. Two versions of the appliance are offered: the IDsentrie 1000 with four 10/100/1000 ports and the IDsentrie 2000 with eight ports and dual SFP fiber ports. Key features of the IDsentrie include Unified Identity Management, Authentication, User Self-Service, and IP-to-ID resolution that uses patented technology, as well as a variety of reporting tools.

IDaccess is a 1U appliance with a subset of IDsentrie's network authentication features. The product integrates RADIUS, DHCP, Guest Access, and A10's IP-to-ID

service. The IDaccess is offered in two versions, both with four 10/100/1000 ports and 160GB hard drives. The IDaccess 500 supports up to 3,000 users and 100 devices, while the IDaccess 800 supports up to 10,000 users and 300 devices.

Business Strategy

A10 Networks is focusing on taking the right steps in the right order. The first achievement has been to create a solid product framework and well-designed products as demonstrated by winning Best of Interop Las Vegas and Tokyo ahead of competition. Following is a partnership program as well as a focus on certain geographic areas.

Partnerships

A10 Networks' current sales model is 100% through partners. Interested partners can elect one of two types of programs: Technical Partnership or Reseller Program. The goal of A10's partnership program is to build a global network of dedicated solution providers to offer service and support to the company's customer base. Partners are meant to provide server load balancing, bandwidth management, and identity and access management solutions to businesses of all sizes and markets, with services from planning to implementation, training, and support. The Reseller Program includes VARs, technology partners, and outsourcing partners. Technical Partnerships are formed with companies in the networking and security markets that complement A10's product lines.

Geographic Coverage

A10 Networks has sales offices in North America, China, Japan, Korea, and Taiwan. Given the short time the products have been released, the company is focusing on creating a solid customer base in these countries. Currently, sales are broken down as follows: USA 25%, Japan 34%, China 16%, and Asia/Pacific (Taiwan, Korea, Southern Asia) 25%. In the U.S. market, a number of large customers are currently in the evaluation phase. The company is currently on track to reach $4 million in sales for 2007.

Market Positioning

A10 is positioning itself against strong competition from Cisco and F5 networks. The company's aim is to win a share of the market based on competitive pricing and scalability. The company believes its ability to appropriately scale performance in complex network based rules puts it in a competitive position. The high-performing appliances in the AX, EX and ID Series are relatively low priced compared with similar appliances by other companies. A10's product packaging is meant to simplify licensing decision making by bundling capabilities into turnkey products.

The pricing ranges for the products are the following:

- AX Series from $17,000 to $70,000
- EX Series from $10,000 to $25,000
- IDsentrie from $20,000 to $30,000

- ID Access from $4,000 to $12,000

In addition, A10 Networks' management believes that they can win market share by changing focus from performance to scalability, throughput, features, and capabilities.

Target Markets

At this stage in A10 Networks' strategy, the target market is defined by the growing client base and by the partners. It is too early for the company to focus on definitive target markets.

FUTURE OUTLOOK

Challenges and Opportunities

IDC believes that the future outlook for Layer 4–7 switching, while positive, will require sophistication in suppliers as it is necessary for the application to coexist with IT supplier strategies related to the remote branch, datacenter consolidation, centralization, and virtualization.

With respect to A10 Networks, IDC believes the company has the following major challenges:

- The ability to fully leverage its channel relationships to achieve the scale and economies of selling globally
- The ability to effectively position its products relative to Cisco and F5, which will most likely be the installed networking vendors of choice at many of the large enterprise customers that A10 Networks is calling on
- Educating customers on rule based scripting to enable customization of installations

ESSENTIAL GUIDANCE

Advice for A10 Networks

As A10 Networks charts its strategy for the next year, it should consider the following:

- Find appropriate partnerships (This market is highly dependant on the intersection of IT, network, and telecommunication suppliers.)
- Expand geographically to address the need for Layer 4–7 switching globally into countries in the rest of Asia, Europe, and India, which will provide more geographic coverage and a larger customer base.
- Create reference accounts with well-defined problems solved using A10 products.
- Leverage customer migration to next-generation network and datacenter traffic demands.

LEARN MORE

Related Research

- *Worldwide Datacenter Layer 4–7 Switch 2007–2011 Forecast and Analysis* (IDC #207654, July 2007)
- *Application Networking News from Interop* (IDC #201641, May 2007)
- *IDC's Worldwide Application Networking Taxonomy, 2007*(IDC #205950, March, 2007*)*
- *Place in the Network* (IDC #204644, December 2006)
- *WAN Application Delivery Enables IT to Achieve the Best at the Branch* (IDC #204234, November 2006)
- *Worldwide WAN Application Delivery 2006–2011 Forecast and Analysis* (IDC #204228, November 2006)

Definitions

Application Networking

Application networking products make intelligent routing, security, and delivery decisions on the network traffic. This is achieved through a variety of technologies, including switching and proxies. Key among application networking product priorities is the need to provide a secure, reliable architecture to enterprise applications — in many instances, Web applications, but in all instances, applications that are running over TCP/IP. The products enable network policy specific to the applications running on the network. Today, the products are primarily deployed in the datacenter and at remote branch offices. In the future, the products will be deployed at other points in the network.

Application network infrastructure is deployed in the following form factors: blades, switches, software only, and appliances. The products tend to compete in three specific market segments: datacenter Layer 4–7 switches, WAN application delivery, and network integrated message routing. These categories are blurring as features in one market are being incorporated into others. Because of this consolidation of features, it is important to look at this market as a whole and in individual components.

Datacenter Layer 4–7 Switch

A datacenter switch (also known as a Layer 4–7 or application switch) makes decisions based on packet information contained in the upper layers of the OSI model, specifically the Transport, Session, Presentation, and Application layers. The Datacenter switch can determine what type of user or device is requesting content and what type of content is being requested and make traffic decisions accordingly. It protects and off-loads networking functions for the server resources in the datacenter. For example, the Layer 4–7 functionality includes access control, bandwidth

management, firewall load balancing, local and global server load balancing, Secure Sockets Layer (SSL) switching, traffic prioritization, and URL and cookie switching. IDC includes in this definition all switches that perform traffic decisions on packets based on information above Layer 3, regardless of whether the packet handling is conducted by a hardware processor or at the software level.

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