



EXECUTIVE OVERVIEW

MARKET
MAP

Enterprise Networking Market Map 2018

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This report assesses the progress of leading companies in the network hardware, software and services markets in evolving to meet new trends in cloud, mobility and the Internet of Things. How are these companies managing the transitions to bring-your-own-device access, network virtualization, cloud enablement and machine-to-machine communications in the increasingly digital and distributed enterprise?



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Key Findings

The enterprise networking market has shifted considerably since the days of Layer 3 switching, speeds and feeds, and raw packet throughput. Software is now the game, brought about by cloud, mobility and digitization/the Internet of Things.

Vendors of hardware infrastructure now must try to embrace more software-driven and virtualized versions of their products, delivered via the cloud.

Makers of tightly integrated hardware/software systems are equally challenged by the need to create compelling differentiation from white-box hardware running merchant silicon, which is able to support a variety of multivendor network operating systems.

The industry is moving toward subscription-based software pricing models, where licensing is portable among hardware platforms and pre-defined packaging is aimed at specific target markets or use cases.

Executive Summary

INTRODUCTION

The enterprise network infrastructure market has been dominated for decades by vendors jousting for superiority in speeds and feeds, attempting to leapfrog each other in terms of port density and offer the highest-speed interface available. Switch capacity, overall throughput and total bandwidth were table stakes for many years. Networks emphasized hardware constructed in a three-tier model of access switches, distribution/aggregation switches and core routing switches or routers directing traffic and making decisions on behalf of an entire infrastructure.

Now the market is going through a technological sea change. Network virtualization and software-defined networking (SDN) enable the dynamism of the cloud along with the ability to access it from mobile devices. Traffic flows east-west now, not just north-south as in traditional three-tier constructs. Wireless LAN (WLAN) and bring-your-own-device (BYOD) initiatives have become the preferred means to access a corporate network. Enterprise network infrastructure vendors are now marketing their offerings as networking services, enabled by virtualization, mobility and cloud dynamics and optimized for those environments as well as the Internet of Things (IoT).

The speeds-and-feeds advantage has become largely irrelevant. Power now resides with vendors embracing mobile access to cloud services; the lead belongs to those with broad wired/wireless/software-defined/virtualized/cloud-based portfolios optimized for cloud application access and driven by intent-based policies that automate and orchestrate the operation of all physical and virtual network elements.

METHODOLOGY

451 Research Market Maps™ are designed to provide a view of the vendor landscape by major segment. The map highlights companies competing in multiple segments by connecting them through a circuit line. Identification and placement of companies into these segments is based on analysis, both published and unpublished, performed by 451 Research. This analysis includes interviews, reports and advisory work with several thousand enterprises, vendors, service providers and investors annually. 451 Research Market Maps™ are not intended to represent a comprehensive list of every vendor operating in this market. Inclusion on 451 Research Market Maps™ does not imply that a given vendor will be specifically featured in one or more 451 research reports.

Reports such as this one represent a holistic perspective on key emerging markets in the enterprise IT space. These markets evolve quickly, though, so 451 Research offers additional services that provide critical marketplace updates. These updated reports and perspectives are presented on a daily basis via the company's core intelligence service, 451 Research Market Insight. Forward-looking M&A analysis and perspectives on strategic acquisitions and the liquidity environment for technology companies are also updated regularly via Market Insight, which is backed by the industry-leading 451 Research M&A KnowledgeBase.

Emerging technologies and markets are covered in 451 Research channels including Cloud Transformation; Customer Experience & Commerce; Data Platforms & Analytics; Datacenters & Critical Infrastructure; Development, DevOps & IT Ops; Information Security; Internet of Things; Managed Services & Hosting; Mobile Telecom; Multi-Tenant Datacenters; Networking; Storage; Systems & Software Infrastructure; and Workforce Productivity & Compliance.

Beyond that, 451 Research has a robust set of quantitative insights covered in products such as Voice of the Enterprise, Voice of the Connected User Landscape, Voice of the Service Provider, Cloud Price Index, Market Monitor, the M&A KnowledgeBase and the Datacenter KnowledgeBase.

All of these 451 Research services, which are accessible via the web, provide critical and timely analysis specifically focused on the business of enterprise IT innovation.

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