

INFONETICS RESEARCH SURVEY EXCERPTS

High-End Firewall Strategies

Infonetics Research Survey Excerpts

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“Many buyers are eyeing products with 100G+ aggregate throughput and support for 40G and 100G ports over the next year.”

Introduction

As enterprises build out data center, headquarter, and even branch office networks with ever-increasing Ethernet speeds, security infrastructure needs to keep up. In the last 3 years, a long list of firewall manufacturers have rolled out products that support between 40G and 1T of aggregate throughput, and they're all investigating the need to support new technologies and new physical interfaces at higher performance levels. In this survey, we found that high-end firewall buyers are looking for:

- Faster firewalls to secure faster networks; many buyers are eyeing products with 100G+ aggregate throughput and support for 40G and 100G ports over the next year
- Improved security; security is the number-one criterion buyers use when evaluating high-end firewall suppliers
- A range of new security services that can be delivered without massive impact on overall performance, and a reasonable way to evaluate real-world performance before buying

Using a panel of qualified IT decision-makers, we conducted a web survey in June 2013 with 104 large organizations (over 1,000 employees) that have already deployed high-end firewalls, defined as firewalls that currently support >40G aggregate throughput. To qualify, respondents had to have detailed knowledge of the high-end firewalls their company has deployed and have influence over purchase decisions for those firewalls. All respondents are either primary decision-makers or have a lot of influence.

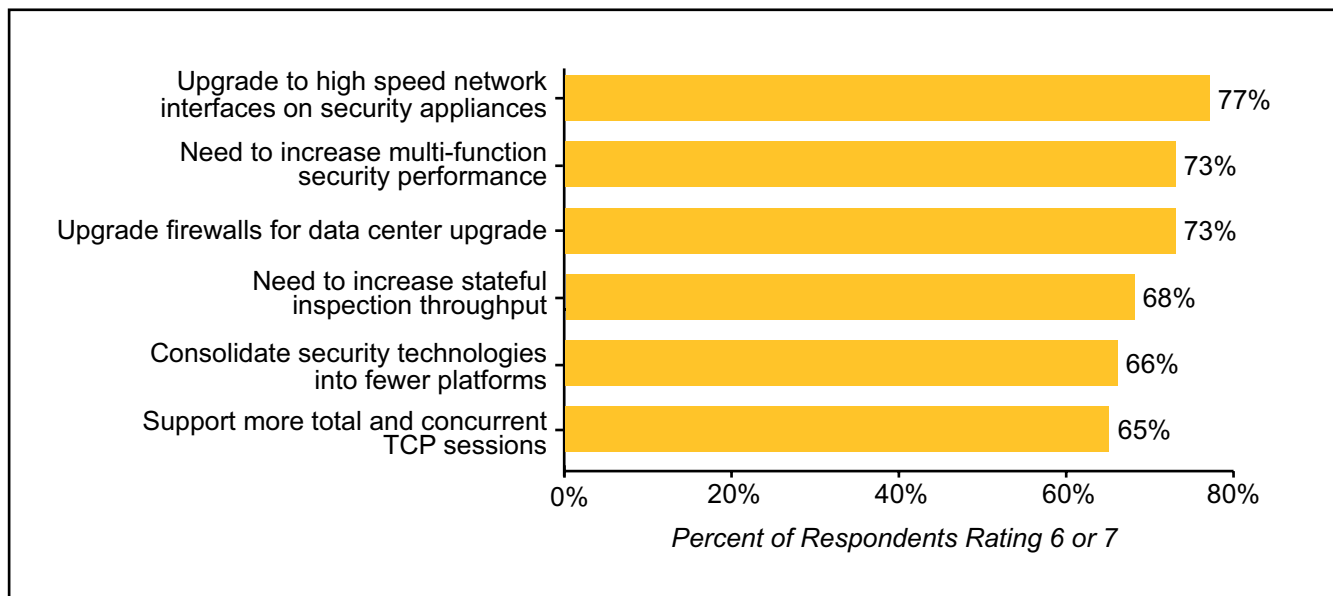
Respondents Feel A Need For Speed

Without a doubt, the move to faster network technologies is forcing enterprises to look at upgrading every moving part of their IT infrastructure, and firewalls are no different; the need to add new high speed interfaces to firewalls (10G, 40G, and eventually 100G) tops the list of drivers for investing in new high-end firewalls; it is a driver for 77% of respondents. Respondents rated the importance of various drivers in the decision to purchase high-end firewalls on a scale of 1 to 7, where 1 means *not a driver*, 4 means *somewhat of a driver*, and 7 means *definitely a driver*.

Second on the list is the need to increase the performance of multiple security functions, rated highly by 73% of respondents. When the concept of a UTM was first introduced in the mid-2000s, it was a great idea, but typically turning on anti-virus, anti-spam, IPS, or other features crippled the overall performance of the box. Things have changed though, and though turning on a host of functions in addition to stateful inspection may slow a firewall somewhat, it's not the 10x+ throughput decrease of the past, so customers are actually starting to deploy firewalls that are handling 2, 3, 4, or even 5 other critical security functions.

The need to support faster physical interfaces is driven in many cases by network upgrades in enterprise data centers, so it makes perfect sense that 73% are buying high-end firewalls as part of a broader data center upgrade; all high-end firewall positioning should specifically call out data center applications and highlight product features that make a great data center firewall. For example, the 65% of respondents looking for better connection performance are likely trying to solve a data center problem.

Exhibit 1: High-End Firewall Purchase Drivers



Infonetics Research, *High-End Firewall Strategies and Vendor Leadership: North American Enterprise Survey*, July 2013

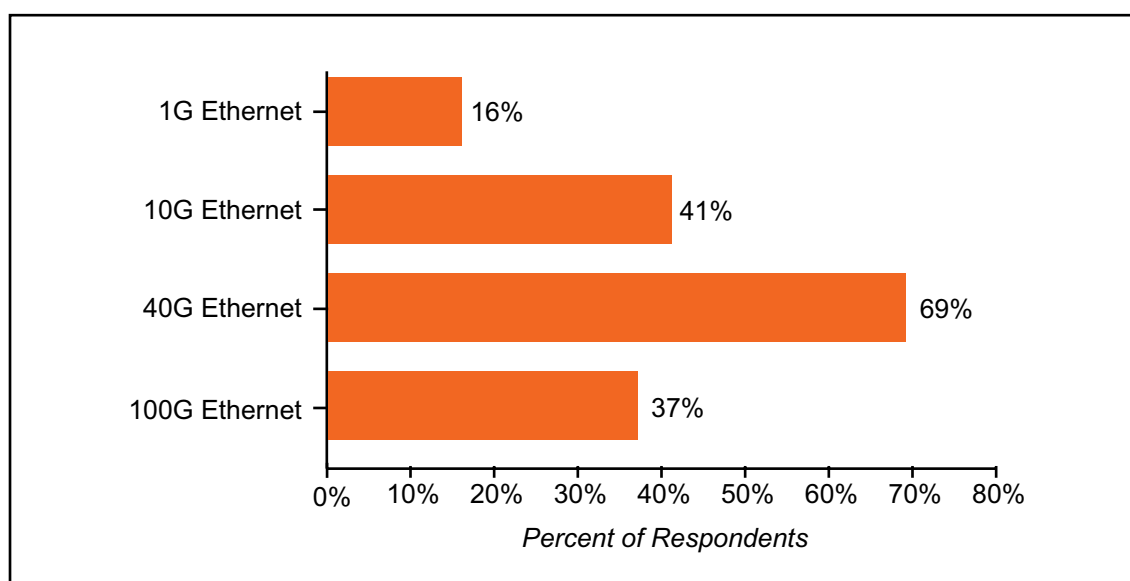
“Vendors who can stay ahead of the interface curve may capture business in the next 12 months on the strength of their interface offering.”

40G Ports and 100G+ Systems A Must

Data center network upgrades are forcing buyers to look at faster interfaces for firewalls, and some large campus environments will certainly drive the need for 10G ports, and possibly even 40G ports in the next 3 years. We asked respondents to indicate which interfaces their new high-end firewalls must support, and the top end of what's currently available leads; 69% of respondents need new high-end firewalls to support 40G ports.

Security product manufacturers are scrambling to meet port requirements; there's a fairly long list of products that offer 10G interfaces, though it's difficult to get terribly high density (more than 10 ports), and there are only a few dedicated products with 40G ports shipping now. Vendors who can stay ahead of the interface curve may capture business in the next 12 months on the strength of their interface offering, so everyone needs to line up plans for 40G and 100G Ethernet immediately. We expect many data center customers to attempt to leapfrog 40G and go straight to 100G, so vendors should talk to their largest customers to understand if (and when) they'll need to support 40G or if it will be easier to just skip 40G and go straight to developing 100G interfaces if buyers are looking at upgrades in late 2014 or early 2015 (when 100G ports become more widely available on networking gear).

Exhibit 2: Maximum Interface Speed Requirements



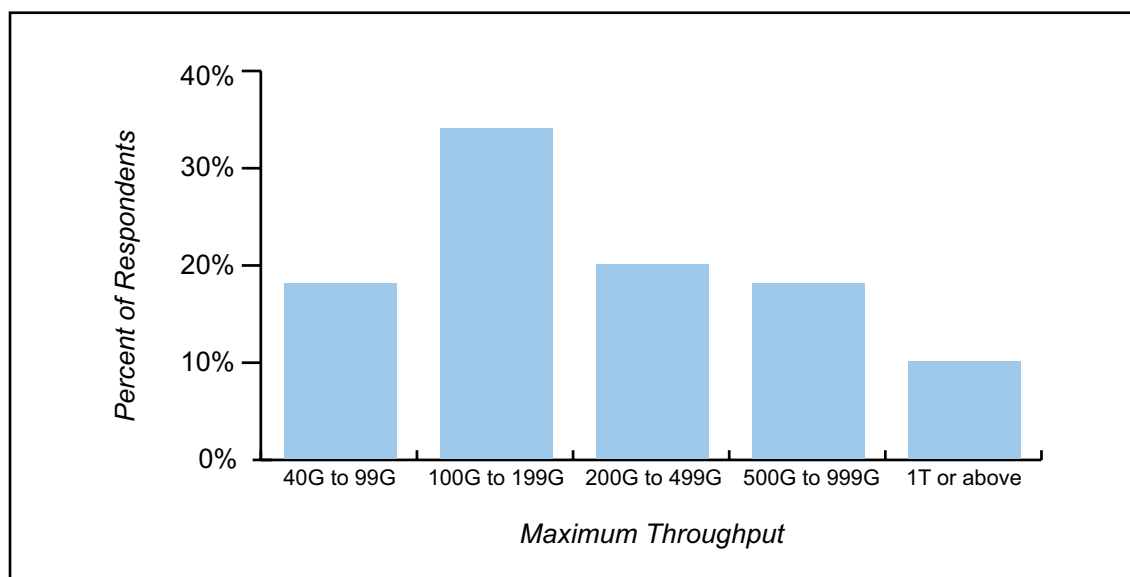
Infonetics Research, *High-End Firewall Strategies and Vendor Leadership: North American Enterprise Survey*, July 2013

“Many customers are looking for increased system performance to run multiple security functions.”

After port speeds, we asked respondents to tell us what maximum stateful inspection throughput they will require their high-end firewalls to support in the next year, and over 80% are looking for platforms with over 100G of aggregate performance, with the largest group looking for 100G to 199G. The number of real-world environments that truly require this kind of performance is small, but many customers (as indicated in the drivers question) are looking for increased system performance to run multiple security functions. A 100G stateful inspection firewall is more likely to run at between 20G and 50G once other security features are enabled.

This brings us to one of the really tricky issues buyers face: every firewall configuration/deployment is unique, and real-world performance is very difficult to predict because it depends on traffic types/patterns and the features enabled. Firewall companies that can help customers accurately spec high-end firewalls and give realistic estimates of real-world performance will build important trust during the purchase process.

Exhibit 3: Maximum Throughput Requirement



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Bottom Line

The battle for high-end firewall market leadership is raging, and market share changes are brewing as serious challengers like Fortinet, Check Point, Palo Alto, and Dell SonicWALL continue to make strong progress at the high end. Buyers need:

- Major increases in throughput and connection performance; in data center environments especially, connection performance is the most important performance metric for firewalls, and many data center buyers need are looking for firewalls with 10x connection performance compared to their currently deployed products
- New security services that can be delivered without massive impact on overall performance, and they need a reasonable way to evaluate real-world performance before buying
- New solutions that offer a verifiable leap in security efficacy; security is by far the most important high-end-firewall supplier selection criterion

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About Infonetics Research

Infonetics Research is an international market research and consulting analyst firm serving the communications industry since 1990. A leader in defining and tracking emerging and established technologies in all world regions, Infonetics helps clients plan, strategize, and compete more effectively.

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