Vendor Landscape: Unified Threat Management

The perimeter firewall grows up & becomes a Swiss Army Knife of protection capabilities

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Introduction

Network security may be old-school, but it is not passé; the right perimeter protection means more threats stay outside & more data stays inside.

This Research Is Designed For:

- Enterprises seeking to select a network perimeter security appliance (Firewall/Unified Threat Manager/Next Generation Firewall) solution for comprehensive protection of the network edge.
- Enterprises that have established their network perimeter Firewall/UTM/NGFW (to be referred to simply as UTM hereafter for simplicity) strategy independently, and simply need guidance in evaluating available products.

This Research Will Help You:

- Understand the capabilities that are available in a modern network perimeter UTM solution.
- Evaluate network perimeter UTM vendors and products for your enterprise needs.
- Determine which products are most appropriate for particular use cases and scenarios.

Executive Summary

Info-Tech evaluated ten competitors in the network perimeter UTM market, including the following notable performers:

Champions:

- WatchGuard, with its balance of strong product and vendor capabilities at a market-leading price point, leads with a UTM solution that can deliver benefits to any organization.
- **SonicWALL** strong all round capabilities, focus on the Small/Medium enterprise, and price points that are hard to ignore makes this an easy vendor to like.
- **Fortinet** helped define the UTM term and space, and still leads the market with unmatched feature/functionality; pricing stabilization has eliminated its long-standing Achilles' Heel.

Value Award:

• **WatchGuard**'s combination of stable and committed vendor, wellrounded product, and rock-bottom pricing earns the company the Best Overall Value Award.

Innovation Award:

• **Palo Alto** with its App-ID, Content-ID, and User-ID technologies has defined the next frontier of perimeter protection, and established the new bar for the market.

Info-Tech Insight



1. The only traffic that counts anymore is HTTP/S:

As all traffic becomes Web traffic, controlling traffic flow by protocol becomes keyed to digging into Port 80 (and 443) traffic.

2. Inbound no longer the only direction in which threats flow:

As security focus has shifted from infrastructure to data, protection needs to address outbound flow as much as inbound attacks.

3. Firewalls can't protect traffic they can't see:

Encrypted traffic obfuscates threats from Firewalls while WiFi networks allow attacks to bypass them entirely; modern solutions must also control these traffic types.

Market Overview

How it got here

- Firewalls as a theoretical concept were first postulated in the late 80's and very shortly thereafter brought into existence as traffic-controlling security tools. Firewalls quickly evolved from simple packet-filters (that simply evaluated source, destination, and protocol) to stateful inspectors (that "remembered" the nature of ongoing communications and the provenance of packets in those communications), and proxies (that evaluated packet contents, rather than just the packets themselves).
- As threats increased through the early millennium, and became complex blended threats, more feature-rich UTM solutions evolved to deal with them. Essentially firewalls with integrated Anti-Malware and Intrusion Prevention capabilities, UTMs replaced multiple point solutions with a single integrated device that offered improved capability, simplified management and economy of scale cost savings.

Where it's going

- UTMs are beginning to morph into Next Generation Firewalls (NGFW) that supplement the abilities of the traditional UTM with more content-aware capabilities such as:
 - 。 URL/Web Content Filtering
 - o Data Leakage Protection
 - Application-centric Control
 - User-centric Control
- In many ways "NGFW" however is simply a marketing term as leading UTMs have been gradually incorporating content-aware protection.
- As network traffic becomes ubiquitously Web traffic, content-level awareness becomes crucial; enterprises can continue to achieve appropriate protection through the deployment of older UTMs supplemented with newer point solutions, or they can once again consolidate, streamline, and improve through current UTM/NGFW solutions.

Info-Tech Insight

As the market evolves, capabilities that were once cutting edge become default, and new functionality becomes differentiating. Integrated IPS and Anti-Malware have become Table Stakes capabilities and should no longer be used to differentiate solutions. Instead focus on Application and Identity-centric Control to get the best fit for your requirements.

UTM Vendor Landscape selection / knock-out criteria: Market share, mind share, and market consolidation

- Regardless of whether they are Firewalls, UTMs, or Next Gen Firewalls, the market is extremely stable, and represented by vendors with years of experience and significant market share. New vendors, such as Palo Alto Networks appear rarely and need to represent a phase shift to gain any traction in the space.
- For this Vendor Landscape, Info-Tech focuses on those vendors that have a strong market presence and/or reputational presence among small to mid-sized enterprises.

Included in the Vendor Landscape:

- <u>Astaro</u>. An up-and-coming provider recently acquired by Sophos to broaden that vendor's security play.
- **Barracuda**. Supplemented its core spam and virus gateways with an NGFW through acquisition of Phion.
- <u>Check Point</u>. One of the progenitors of the firewall space, and still one of the most recognizable names.
- <u>**Cisco**</u>. The most widely deployed firewall solutions as the company has leveraged its networking market share.
- *Fortinet*. The vendor that coined the UTM term, and one of the first to incorporate enhanced capabilities.
- **Juniper**. Entered the firewall market through acquisition of NetScreen and has established a solid foothold since.
- <u>McAfee</u>. Acquisition of Secure Computing brought appliance lines, including firewall, to an established portfolio.
- **Palo Alto**. The latest entrant to the market of those reviewed, but the first to focus on application control.
- **SonicWALL**. SMB focused player now stretching its legs into the large enterprise space.
- <u>WatchGuard</u>. Another vendor growing into larger markets after early focus on the SMB space.

UTM Scoring Criteria & Weighting Factors

Product Evaluation		Features 25% Usability
Features	The solution provides basic and advanced feature/functionality.	30% 25% Usability
Affordability	The five year TCO of the solution is economical.	Architecture 20% 30% Affordability
Usability	The solution's dashboard and reporting tools are intuitive and easy to use.	Product 50%
Architecture	The delivery method of the solution aligns with what is expected within the space.	
Vendor Evaluation		50%
Viability	Vendor is profitable, knowledgeable, and will be around for the long-term.	Vendor
Strategy	Vendor is committed to the space and has a future product and portfolio roadmap.	Viability 30% 25% Strategy
Reach	Vendor offers global coverage and is able to sell and provide post-sales support.	Channel 15% 30% Reach
Channel	Vendor channel strategy is appropriate and the channels themselves are strong.	

The Info-Tech UTM Vendor Landscape

Champions receive high scores for most evaluation criteria and offer excellent value. They have a strong market presence and are usually the trend setters for the industry.

Market Pillars are established players with very strong vendor credentials, but with more average product scores.

Innovators have demonstrated innovative product strengths that act as their competitive advantage in appealing to niche segments of the market.

Emerging players are newer vendors who are starting to gain a foothold in the marketplace. They balance product and vendor attributes, though score lower relative to market Champions.

For an explanation of how the Info-Tech Vendor Landscape is created, please see <u>Vendor Evaluation Methodology</u> in the appendix.



Balance vendor and product strengths to find the best fit for your enterprise



For an explanation of how the Info-Tech Harvey Balls are calculated, please see <u>Vendor Evaluation Methodology</u> in the appendix.

The Info-Tech UTM Value Index



Table Stakes represent the minimum standard; without these, a product doesn't even get reviewed

The Table Stakes

Feature	Description
Firewall	The solution includes a stateful inspection packet filter firewall
VPN	Offers IPSEC (for site-to-site tunnels) and SSL VPN (for remote access) options
Anti-Malware	Built-in perimeter anti-virus and anti- spyware protection
Intrusion Prevention	Ability to recognize and restrict inappropriate and unauthorized access

What Does This Mean?

The products assessed in this Vendor LandscapeTM meet, at the very least, the requirements outlined as Table Stakes.

Many of the vendors go above and beyond the outlined Table Stakes, some even do so in multiple categories. This section aims to highlight the product capabilities **in excess** of the criteria listed here.

Info-Tech Insight

If Table Stakes are all you need from your UTM solution, the only true differentiator for the organization is price. Otherwise, dig deeper to find the best price to value for your needs.

Advanced Features are the market differentiators that make or break a product

Scoring Methodology

Info-Tech scored each vendor's features offering as a summation of their individual scores across the listed advanced features. Vendors were given 1 point for each feature the product inherently provided. Some categories were scored on a more granular scale with vendors receiving half points (see Partial functionality criteria).

Advanced Features

Feature	What We Looked For
Identity-Based Control	Mapping of specific security policies to defined user groups and individuals
Data Leakage Protection	Restriction on the egress of sensitive, privileged, or confidential data
Network Access Control	Endpoint interrogation to ensure each connecting device has appropriate security
URL Filtering	Restrictive filtering of Web surfing to limit exposure to harmful and inappropriate sites
Application Control	Ability to restrict, on a granular level, which Web apps are allowed to run
WiFi Network Control	Ensuring WiFi networks have the same security stance and abilities as the perimeter
WAN Routing & Optimization	Dynamic routing of WAN traffic backed by QoS and prioritization capabilities
Encrypted Data Control	Native decryption and re-encryption of SSL and SFTP traffic for thorough inspection

Each vendor offers a different feature set; concentrate on what your organization needs.



WatchGuard; solid capability and stellar pricing



Champion

Product: XTM 5 Series

Employees: 400+ Headquarters: Seattle, WA Website: WatchGuard.com Founded: 1996 Presence: Privately Held





Overview

• WatchGuard strongly, though no longer exclusively, focuses on the firewalling needs of the SMB space. The company is strong, the products able, and the pricing can't be beat.

Strengths

- XTM 5 Series line comprised of 4 license key upgradeable models; when requirements outgrow capabilities, a rip-and-replace upgrade is completely avoided.
- Company earns top strategy marks by focusing exclusively on the edge protection market and primarily on the needs of small to mid-sized businesses.

Challenges

- A feature set that is good, but not great (no DLP, NAC, or WiFi network management) may limit the appeal for businesses seeking comprehensively consolidated solutions.
- On-going market consolidation may exert considerable pressure on WatchGuard as competition gets deeper pockets and leveraged sales opportunities.

Info-Tech Recommends:

Small/Medium businesses looking for solid feature functionality at an absolute rock-bottom price will find a lot to like in WatchGuard and their XTM line of appliances.

SonicWALL; the best combination of features and price



Champion

Product: Network Security Appliance

Employees: 900+ Headquarters: San Jose, CA Website: SonicWALL.com Founded: 1991 Presence: Privately Held



3 Year TCO between \$50,000 and \$100,000

Overview

• SonicWALL offers a broad range of network security products and services, for enterprises of all sizes (although core focus continues to be SMB). In this review, its tools have the best combination of features and price.

Strengths

- SonicWALL's Cavium multi-core processor architecture offers massively parallel processing allowing for proxy and reassembly-free packet-by-packet Deep Packet Inspection.
- With over 1 million devices shipped, the company is a market leader in its target SMB market (and is growing in the enterprise) and is likely to be around for the long-haul.

Challenges

- The use of specialized processors means no software-only products exist, and raises questions of how functional the forthcoming virtual appliances will be.
- SonicWALL writes its own signatures for its detection engines; this gives them notable control and flexibility, but may impede response rates compared to syndicated feeds.

Info-Tech Recommends:

SonicWALL's comprehensive feature/functionality, diversity of device options, and attractive pricing make it an ideal choice for enterprises looking for a physical appliance-based solution.

Fortinet; the most feature-rich solution on the market



Champion

Product: FortiGate

Employees: 1,300+ Headquarters: Sunnyvale, CA Website: Fortinet.com Founded: 2000 Presence: NASDAQ: FTNT FY10 Revenue: \$325M





Overview

• Fortinet broke the firewall mold with its original FortiGate and helped define the UTM Market. It continues to lead the way with the broadest feature set in this review.

Strengths

- The most feature-rich solution evaluated, and the only one to have capability in every identified advanced feature. Continues to push boundaries, and add new features (e.g. Vulnerability Scanning).
- Dedicated threat and product research teams ensure capabilities and protection always on leading edge.

Challenges

- The use of dedicated FortiASIC processors drives high performance today, but may limit flexibility tomorrow as it requires the company to invest in hardware R&D as well as functionality R&D.
- As markets consolidate, the question exists whether Fortinet is large enough to maintain viability and fend off advances.

Info-Tech Recommends:

Fortinet offers the most feature-rich and complete solution available and does so at a price that can no longer be considered punitive; a must evaluate option for all enterprises.

Barracuda; highly capable solution, but gets expensive quickly

Innovator

Product: NG Firewall

Employees: 700+ Headquarters: Campbell, CA Website: Barracuda.com Founded: 2003 Presence: Privately Held





Overview

 Barracuda built its business on low-cost, high function spam and malware "firewalls," and has continued to grow its portfolio. It entered the NGFW market via its 2009 acquisition of Phion.

Strengths

- NGFW offers flexibility of hardware, software, and virtual appliance deployment methods, and is integrated well into the broad Barracuda product line.
- Unique 100% historical revision auditing system allows clients to easily roll-back to previous configuration versions, should errors or mis-configurations be detected.

Challenges

- Penetration of the NGFW into the company's existing partner channel minimal so far, and most partners are focused on the large enterprise; finding an SMB partner may be a challenge.
- Though low-end boxes are inexpensive, mid-tier device prices scales rapidly, making Barracuda one of most expensive solutions in this evaluation.

Info-Tech Recommends:

Enterprises looking for the pinnacle of protection will do well to evaluate Barracuda's offering, those looking for mid-pack functionality and bottom-end pricing should look elsewhere.

Juniper; one of the strongest application control suites



Info-Tech Recommends:

Juniper offers an excellent blend of pricing and capability and is a company with a proven track-record; Juniper shops will find an excellent fit, and others will find a worthy option.

Palo Alto; disruptive product that is redefining the market



Innovator

Product: PA Series

Employees: 420 Headquarters: Santa Clara, CA Website: PaloAltoNetworks.com Founded: 2005 Presence: Privately Held





Overview

• Founded by ex-Check Point and NetScreen executives and engineers, Palo Alto released their first appliances in 2007 and instantly established themselves as leaders in the NGFW revolution.

Strengths

- App-ID, Content-ID, User-ID are market-leading capabilities and have forced other UTM vendors into catch-up mode on these "next generation" capabilities.
- Though not the cheapest solution, the company offers its class-leading capability for middle-of-the-pack pricing.

Challenges

- Products extremely capable, but market penetration so far very low with count of deployed devices in the thousands, rather than the hundreds of thousands for competitors; definitely the smallest player evaluated.
- Hardware-only deployment options (though model line not overly cluttered like many competitors) may limit applicability.

Info-Tech Recommends:

Though small, Palo Alto has a top-notch product and is already establishing a solid reputation; expansion of product line to include PA-500 makes it worthy, even for smaller enterprises.

Check Point; price premium not necessarily warranted

Market Pillar

Product: UTM-1

Employees: 2,200 Headquarters: Tel Aviv, Israel Website: CheckPoint.com Founded: 1993 Presence: NASDAQ: CHKP FY10 Revenue: \$1.0B





Overview

• One of the first firewall providers, and still a market-share leader, Check Point offers firewalls (and related security tools) of all capacities and capabilities, to clients of all sizes.

Strengths

- Delivers significant architectural flexibility via its "Software Blade" architecture that allows enterprises to customize protection by need and platform.
- A support network that is truly monumental in size; on-site support in over 250 countries and multi-region stock depots for fast delivery of spares, even into difficult locations.

Challenges

- Broad portfolio of deployment options includes significant amount of overlap. Determining optimal solution for every need potentially confusing and difficult.
- Lack of WiFi and built-in SSL decryption means enterprises looking to address all ingress options may need supplementary solutions.

Info-Tech Recommends:

Check Point reputation likely to draw reviews, Check Point price premium likely to deter SMBs when smaller names offer better price points on more capable solutions.

Astaro; flexible, capable solution with expensive subscriptions

Market Pillar

Product: Security Gateway

Employees: 230 Headquarters: Karlsruhe, Germany Website: Astaro.com Founded: 2000 Presence: Privately Held



3 Year TCO between \$100,000 and \$250,000

Overview

• Smaller vendor that is dedicated to perimeter protection and focused on the SMB space; recently acquired by market-leading Anti-Malware company Sophos.

Strengths

- Well rounded solution that offers good blend of capability with flexible deployment options (software primarily, but hardware and virtual appliances options available).
- Remote Ethernet Device (RED) uniquely allows SMBs to extend firewall capability into small branches without actually deploying a firewall

Challenges

- Appliances have attractive pricing, but TCO grows rapidly as a result of expensive subscription services; what seems a cheap solution at first really isn't when bells and whistles are added.
- Recent acquisition by Sophos enhances viability, but integration pains inevitable as the two companies synthesize.

Info-Tech Recommends:

Subscription service pricing keeps this flexible and capable solution out of the Champion zone; those looking for basic capabilities will find value, those wanting more may wish to look elsewhere.

McAfee; solid option, especially for McAfee (and ePO) shops

Market Pillar

Product: Firewall Enterprise

- Employees: Headquarters: Website: Founded: Presence:
 - 6,378 San Clara, CA McAfee.com 1987 NASDAQ: INTC FY10 Revenue: \$2.1B





Overview

• Now a wholly-owned division of Intel, McAfee is the world's largest dedicated security solutions provider. It entered the firewall market via its 2008 acquisition of Secure Computing.

Strengths

- Viability, reach, and channel capabilities that are second to none make this a vendor that enterprises can trust.
- Management console integrates with ePolicy Orchestrator (ePO), McAfee's holistic management platform: allows for management of the entire McAfee stack via a single console.

Challenges

- Third-party integrations (CrossBeam, RiverBed) indicate that company focus is on the large enterprise, not SMB, client.
- Concerns over the impact of the Intel acquisition lessening, but still not yet completely alleviated, particularly in relation to McAfee's hardware business.

Info-Tech Recommends:

A solution that all McAfee shops should evaluate as a viable option; for those without ePO, Firewall Enterprise is solid, but unspectacular and better options exist.

Cisco; little functionality beyond the most basic capabilities



Overview

• By virtue of leveraging its dominant networking market share, Cisco is one of the largest firewall vendors in the world, though most of this is via older (and simpler) PIX firewalls.

Strengths

- As the largest vendor in the space, and indeed one of the largest technology companies in the world, Cisco's viability is unparalleled.
- Partner and support networks that are unmatched in terms of size and distribution.

Challenges

- Solution available as a hardware option only; devices offer no advanced functionality by default, relying on expansion cards instead, but each chassis has only a single expansion slot so functionality options are very limited.
- Cisco's predominant focus is networking, so security is definitively a non-core focus.

Info-Tech Recommends:

Cisco's ASA is advanced in name only; feature/functionality is so limited that it is all but impossible to recommend the solution to any enterprise.

Identify leading candidates with the *UTM Vendor Shortlist Tool*

The Info-Tech <u>UTM Vendor Shortlist Tool</u> is designed to generate a customized shortlist of vendors based on *your* key priorities.

This tool offers the ability to modify:

- Top-level weighting of product vs. vendor criteria
- Individual product criteria weightings:
 - ✓ Features
 - ✓ Usability
 - ✓ Affordability
 - ✓ Architecture
- Individual vendor criteria weightings:
 - ✓ Viability
 - ✓ Strategy
 - ✓ Reach
 - ✓ Channel





To protect against subversive traffic, network protection must first be able to see it

Wireless and encrypted traffic can bypass the perimeter; protecting these entry methods is essential.



Price/performance blend key factor to most SMB's

Product "bang-for-the-buck" comes from evaluating features and price, leaving all other factors aside.



When nothing but the best will do – the pinnacle of ability

Top end capability a measure of functionality and usability; leveraging the one always requires the other.



Appendix

- 1. Vendor Evaluation Methodology
- 2. Value Index Ranking Methodology
- 3. Product Pricing Scenario & Methodology

1. Vendor Evaluation Methodology

Info-Tech Research Group's Vendor Landscape market evaluations are a part of a larger program of vendor evaluations which includes Solution Sets that provide both Vendor Landscapes and broader Selection Advice.

From the domain experience of our analysts as well as through consultation with our clients, a vendor/product shortlist is established. Product briefings are requested from each of these vendors, asking for information on the company, products, technology, customers, partners, sales models and pricing.

Our analysts then score each vendor and product across a variety of categories, on a scale of 0-10 points. The raw scores for each vendor are then normalized to the other vendors' scores to provide a sufficient degree of separation for a meaningful comparison. These scores are then weighted according to weighting factors that our analysts believe represent the weight that an average client should apply to each criteria. The weighted scores are then averaged for each of two high level categories: vendor score and product score. A plot of these two resulting scores is generated to place vendors in one of four categories: Champion, Innovator, Market Pillar, and Emerging Player.

For a more granular category by category comparison, analysts convert the individual scores (absolute, non-normalized) for each vendor/product in each evaluated category to a scale of zero to four whereby exceptional performance receives a score of four and poor performance receives a score of zero. These scores are represented with "Harvey Balls", ranging from an open circle for a score of zero to a filled in circle for a score of four. Harvey Ball scores are indicative of absolute performance by category but are not an exact correlation to overall performance.

Individual scorecards are then sent to the vendors for factual review, and to ensure no information is under embargo. We will make corrections where factual errors exist (e.g. pricing, features, technical specifications). We will consider suggestions concerning benefits, functional quality, value, etc; however, these suggestions must be validated by feedback from our customers. We do not accept changes that are not corroborated by actual client experience or wording changes that are purely part of a vendor's market messaging or positioning. Any resulting changes to final scores are then made as needed, before publishing the results to Info-Tech clients.

Vendor Landscapes are refreshed every 12 to 24 months, depending upon the dynamics of each individual market.

2. Value Index Ranking Methodology

Info-Tech Research Group's Value Index is part of a larger program of vendor evaluations which includes Solution Sets that provide both Vendor Landscapes and broader Selection Advice.

The Value Index is an indexed ranking of value per dollar as determined by the raw scores given to each vendor by analysts. To perform the calculation, Affordability is removed from the Product score and the entire Product category is reweighted to represent the same proportions. The Product and Vendor scores are then summed, and multiplied by the Affordability raw score to come up with Value Score. Vendors are then indexed to the highest performing vendor by dividing their score into that of the highest scorer, resulting in an indexed ranking with a top score of 100 assigned to the leading vendor.

The Value Index calculation is then repeated on the raw score of each category against Affordability, creating a series of indexes for Features, Usability, Viability, Strategy and Support, with each being indexed against the highest score in that category. The results for each vendor are displayed in tandem with the average score in each category to provide an idea of over and under performance.

The Value Index, where applicable, is refreshed every 12 to 24 months, depending upon the dynamics of each individual market.

3. Product Pricing Scenario & Methodology

Info-Tech Research Group provided each vendor with a common pricing scenario to enable normalized scoring of Affordability, calculation of Value Index rankings, and identification of the appropriate solution pricing tier as displayed on each vendor scorecard.

Vendors were asked to provide *list* costs for UTM appliances to address the needs of a reference organization described in the following pricing scenario.

Additional consulting, deployment, and training services were explicitly out of scope of the pricing request, as was the cost of *enhanced* support options beyond the minimum required to provide 24/7 protection, though vendors were encouraged to highlight any such items included with the base product acquisition. The annual software/hardware maintenance rate was also requested, along with clarity on whether or not the first year of maintenance was included in the quoted license costs, allowing a three-year total acquisition cost to be calculated for each vendor's solution. This three-year total acquisition cost is the basis of the solution pricing tier indicated for each vendor.

Finally, the vendors' three-year total acquisition costs were normalized to produce the Affordability raw scores and calculate Value Index ratings for each solution.

Key elements of the common pricing scenario provided to UTM vendors included:

- A three-site organization with 2200 employees located at a US head office facility, a second US satellite office, and a European satellite office. IT functions, including 3 dedicated IT security professionals, are located primarily at the US head office, with a small proportion of IT staff and systems located at the European site, which also acts as a DR facility.
- The firm is interested in providing comprehensive hardware-based network perimeter protection for all three locations. It is seeking a solution that can be centrally managed across all locations via a single location and single management console (where possible). Head-office and DR facilities require fully redundant infrastructure to ensure optimal continuity of connectivity.
- The firm defines "comprehensive protection" as including the following capabilities:
 - ° Firewalling
 - IPSEC and SSL VPN
 - Intrusion Prevention
 - ° Gateway Anti-Malware
 - Network Access Control
 - Data Leakage Protection