

Cybersecurity

Palo Alto Networks, Inc. (PANW)

Price Target \$613.26 | Share Price \$557.51 | Upside 10.0%

Investment Summary

Increasing Market Share in a Growing Market Segment

Irrespective of economic and financial conditions, cyber threats are essentially guaranteed to continue to rise unabated. Geopolitical cyber warfare and the proliferation of cryptocurrency-based ransomware attacks can only accelerate the number of attacks and the adoption of cloud computing and work from home have vastly expanded attack surfaces. This will force firms to prioritize cybersecurity spending driving high, sustainable growth in the overall market for at least the next decade.

Palo Alto Networks not only operates in a growing market but also stands to gain market share by providing comprehensive solutions for enterprises in place of mix-and-matched network security products. This will allow Palo Alto to charge a premium as firms that purchase their products and services can reduce costs. Palo Alto will also easily be able to upsell add-ons. The company's shift from hardware to software will also increase margins and cash flow and therefore justify an increasing valuation.

Company Profile

Palo Alto Networks is a leading network security solutions provider offering an integrated yet wide-ranging lineup of hardware and software products to medium to large-sized enterprises. The company was founded in 2005 and grew substantially by pioneering the next-gen firewall (NGFW). The company has since shifted from a primary focus on hardware firewall products towards comprehensive software platforms. The company operates primarily in the United States, with the nation accounting for 65% of the company's revenue.

Platform Segments

Network Security – Strata + Prisma SASE

Networks security originally evolved from traditional centralized stand-alone firewalls into firewalls aided by additional devices collectively called security stacks. These centralized security stacks then needed to be able to backhaul traffic to handle additional connections from home and mobile devices and connections to public clouds and SaaS applications. Now enterprises have a multitude of security products in hardware security stacks, software security stacks, and secure access service edge (SASE) security stacks.

Matthew Wisneski

Investment Committee ('23)

Chris Vedra

Investment Committee ('24)

Key Data

FD Market Cap (\$M)	\$71,447.3
Share Price	\$557.51
52 Week Range	\$312-\$599
Net Debt/EBITDA	2.5x
5Y Avg ROE	45.2%
5Y Revenue CAGR	25.3%
Est LT EPS Growth	26.9%

EPS – *Blue Indicates Non-GAAP Based

FY Ending	Jul '20	Jul '21	Jul '22E	Jul '23E
Q1 (Oct)	1.05	1.62	1.64	2.02
Q2 (Jan)	1.19	1.55	1.74	2.15
Q3 (Apr)	1.17	1.38	1.68	2.16
Q4 (Jul)	1.48	1.60	2.22	2.66
FY	4.88	6.14	7.29	9.03

Sales (\$B) - *Yellow Indicates Estimates

FY Ending	Jul '20	Jul '21	Jul '22E	Jul '23E
Q1 (Oct)	0.77	0.95	1.25	1.52
Q2 (Jan)	0.82	1.02	1.32	1.61
Q3 (Apr)	0.87	1.07	1.36	1.66
Q4 (Jul)	0.95	1.22	1.53	1.86
FY	3.41	4.26	5.46	6.66

Annual Financial Data (\$B)

FY	'18	'19	'20	'21
Sales	2.27	2.90	3.41	4.26
EBITDA	-0.04	0.09	0.33	0.00
Net Inc	0.38	0.54	0.48	0.62
FCF	0.93	0.92	0.82	1.39
Assets	5.82	6.59	9.07	10.24
Net Debt	-1.46	-1.38	-0.27	0.83

In place of this multitude of separate, unconnected products, Palo Alto offers a unified network security platform consisting of their Strata suite and Prisma SASE. The company’s Strata suite consists of hardware next-gen firewalls, software firewalls, and several related services. Prisma SASE is Palo Alto’s comprehensive secure access service edge (SASE) solution. Palo Alto’s Prisma SASE combines their software-defined wide area network (SD-WAN) with security services including firewall as a service (FWaaS), Secure Web Gateway (SWG), Cloud Access Security Broker (CASB), and Zero Trust Network Access (ZTNA). The company now offers 9 total security services under its network security segment.

Palo Alto has sold network security products and services to over 77% of Forbes Global 2000 companies. For 2021 to 2024, the company foresees compound annual growth in the total addressable market for network security at a rate of 9%, including a 13% CAGR of the software firewalls TAM and 36% CAGR for the SASE TAM.

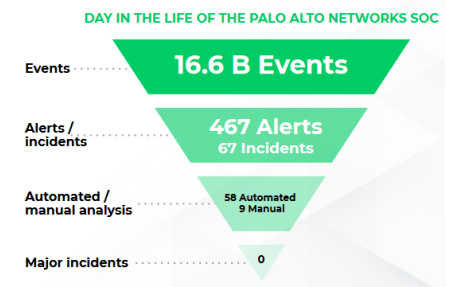
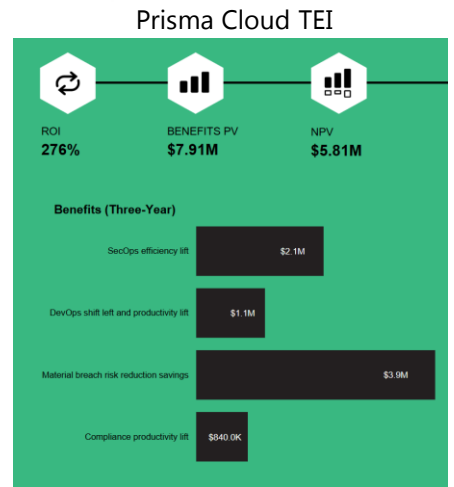
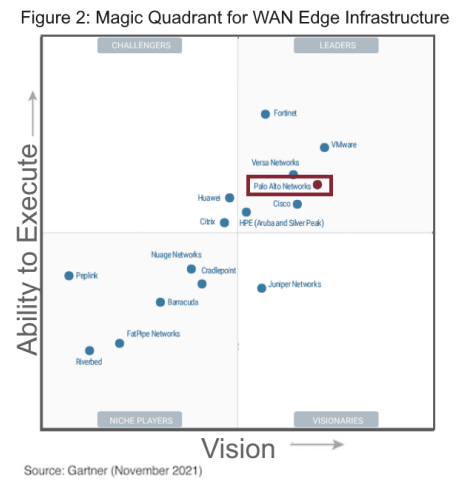
Cloud Security – Prisma Cloud

Of the three segments, the total addressable market for cloud security is the smallest but fastest growing. Businesses have rapidly shifted from data centers to public clouds, private clouds, hybrid clouds, and multi-clouds. Some applications were transferred directly while many others were designed natively for the cloud. Palo Alto’s Prisma Cloud is the company’s comprehensive Cloud Native Security Platform (CNSP) capable of securing applications, data, and entire cloud native technology stacks across entire development cycles and hybrid and multi-cloud environments. Prisma Cloud enables firms to consolidate from 12-15 different cloud security point products down to just one, thereby saving costs and achieving greater security as there are no gaps left between point products.

512 of Palo Alto’s 2,703 Prisma Cloud customers are Forbes Global 2000 members, implying an approximately 25% market share amongst that group. The company estimates that the Cloud Security TAM will grow from \$10B in 2021 at 30% CAGR through 2024.

Security Operations - Cortex

Security Operations Centers (SOCs) currently suffer both from an overwhelming volume of alerts yet also a limited source of data input. Forrester reports that SOC’s face 11,000 alerts per day and 28% are left ignored. Concurrently, SOC’s have on average 75 different security products to monitor their attack surface and it takes teams on average 287 days to identify and contain data breaches. Palo Alto’s Cortex line allows SOC’s to consolidate their products, monitor their full attack surface, and handle a manageable volume of alters in a timely manner. Cortex Xpanse handles Attack Surface Management (ASM) giving SOC’s a complete, automated inventory of all internet-facing assets and providing insight into which attack surfaces have become more vulnerable to attacks. The system can then feed its data into Cortex XDR which leverages AI/ML to block malware and exploits as well as detecting anomalies indicative of an attack. Cortex



XSOAR can then be fed XDR data (or data from third-party services) automate and integrate responses to attacks extremely quickly and provide live visualization tools to SOCs.

Palo Alto provides Cortex products to 74 of the Fortune 100 companies. The company forecasts a SOC TAM CAGR between 2021 and 2024 to be 15%.

Competitive Landscape – [\$B FD Mkt Cap]

Cisco Systems (CSCO) [\$234.9B]

Cisco is a communications equipment behemoth with FY '21 (End Jul '21) sales of \$49.8B. However, security equipment such as next-gen firewalls and security services such as VPN clients accounted for only 6.8% of the company's FY '21 revenue. At \$3.38B, however, even though the percentage of total revenue is small, Cisco's security revenue is 79% the size of Palo Alto's. As of calendar Q2 of 2021, Cisco held 16.1% of the security appliance vendor market share (vs PANW: 18.9%), however, Cisco has been steadily losing market share in the space to Palo Alto and other competitors for years. In 2020, Cisco lost its spot as the leader in the Security Appliance market to Palo Alto.

Check Point (CHKP) [\$20.0B]

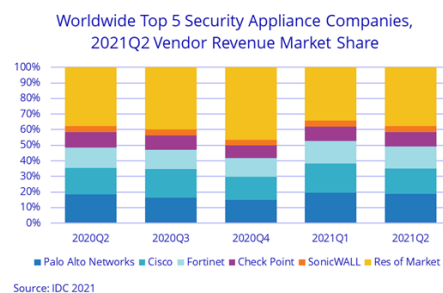
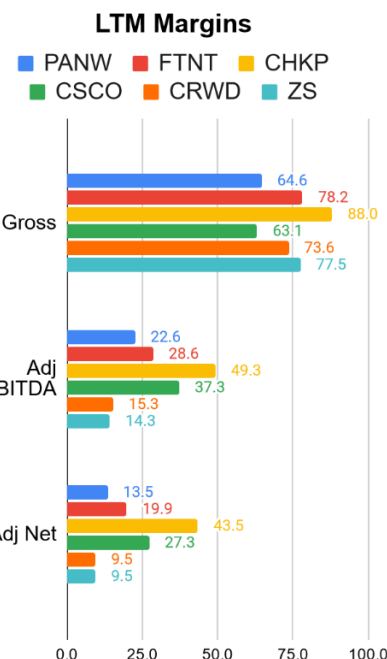
Check Point Software Technologies Ltd. is an Israeli network security company with a 5y Avg FCF CAGR of 4.4%. The company has struggled to offset stagnant hardware revenues. Fortinet's low prices generally and particularly on their SD-WAN offering (cheaper to produce than MPLS) have undercut Check Point's sales in low-margin verticals. Meanwhile, Palo Alto has undercut their sales to companies demanding more comprehensive cloud security. The company has thus far struggled to cross-sell their non NGFW services: Quantum, Cloud Guard, Harmony, and Infinity. None is recognized as an industry leader, but a very favorable network security spending environment may help the company cross-sell these services and escape from stagnant hardware growth.

Fortinet (FTNT) [\$53.9B]

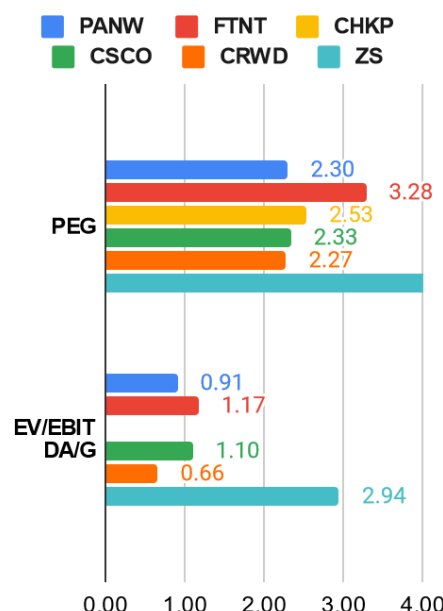
Fortinet is a fast growing security appliance company with a 5y Avg FCF CAGR of 34.0%. (vs PANW: 18.8%) It is now the 3rd largest in the sector with 14.3% market share and seems poised to capture the #2 spot from Cisco within the next 1-2 years. With lower priced offerings and integrated hardware products, Fortinet has been able to rapidly gain hardware market share as competition has shifted towards cloud offerings. Half of Fortinet's customer base is small to mid-sized businesses. This group has been slower to shift from on-premise data centers onto public clouds and Fortinet has been able to drive strong sales growth of their FortiGate line of more traditional on-premise NGFWs and corresponding software services. Nevertheless, the company has positioned itself to gain from cloud adoption with its SD-WAN products, yet it may be difficult to displace the offerings of Palo Alto and others outside of small to mid-sized businesses. While the company has strong growth prospects, it's hardware centric, traditional firewall business will eventually slow down over the next several years whilst the stock faces difficult YoY comps, especially at its extremely rich valuation.

CrowdStrike (CRWD) [\$43.3B]

Palo Alto does not directly compete with CrowdStrike. CrowdStrike provides endpoint protection platforms (EPP), competing against McAfee, Symantec, Trend Micro, Sophos, Kaspersky, and ESET. While the company has grown extremely rapidly, growth expectations are very high and assume only light competition.



Valuation



PEG = [Price/Est CY'23 EPS]/Est LT EPS Growth Rate
 EV/EBITDA = [EV/Est CY'23 Adj EBITDA]/Est '23 Adj EBITDA Growth Rate

Zscaler (ZS) [\$33.8B]

Zscaler is a cloud security company offering entirely cloud native services such as Zscaler Internet Access (ZIA) and Zscaler Private Access (ZPA). ZIA replaces the more traditional and expensive MPLS and vastly increases speed as traffic can securely route directly rather than backhauling to a central, on-premise company location. ZPA replaces traditional VPN appliances, allowing more custom rules for each user. These along with several other features offered as part of Zscaler’s Security Service Edge (SSE) offerings have enabled them to push to the best in-class SSE provider. Palo Alto scores roughly equivalently in terms of ability but suffers in SSE vision because they are more focused on the complete SASE market (essentially SSE + SD-WAN). While Zscaler has grown very quickly and provides leading services in the fast-growing cloud space, the company’s valuation even adjusted for growth is still far above its peers.

Management Profile

Nikesh Arora – Chairman & Chief Executive Officer

Before joining Palo Alto in 2018, Nikesh served as President and COO of Softbank Group Corp. Prior to that, he spent 10 years at Google in various roles ranging from Senior V.P, CBO, to President of Global Sales Operations. Additionally, Nikesh founded T-Motion PLC which merged with T-Mobile in 2002. As for education, he has an MBA from Northeastern University, M.S. in Finance from Boston College, and a B.S. in Electrical Engineering.

BJ Jenkins Jr. – President

BJ joined the company last August (2021) and oversees the go-to-market functions which included sales, consulting, business development and operations, along with partnerships. Before Palo Alto, BJ served as President & CEO of Barracuda Networks, where he led strategic acquisitions of SignNow, Intronis, Sonian, & PhishLine. As for education, BJ has an engineering degree from the University of Illinois and an MBA from Harvard Business School.

Dipak Golechha – Chief Financial Officer & Executive Vice President

Prior to joining Palo Alto in 2020, Dipak spent 18 years at Proctor & Gamble, where he served as global divisional CFO & COO. After his time there, he served as CFO for Chobani and CFO at The Nature’s Bounty Company. Additionally, for 4 years Dipak served as CEO of Excelligence Learning Corp, which is a tech-enabled education company. He holds a bachelors and master’s in economics from Cambridge University.

Nir Zuk – Founder & Chief Technology Officer

Prior to co-founding Palo Alto, Zuk was CTO at NetScreen Technologies, which went on to be acquired by Juniper Networks in 2004. Before NetScreen, he was a co-founder and CTO at OneSecure, a pioneer in intrusion prevention and detection appliances. Additionally, Zuk was a principal engineer at Check Point Software Technologies. As you can see,

Figure 3: Magic Quadrant for Security Service Edge



Source: Gartner (February 2022)



Nikesh Arora



BJ Jenkins



Dipak Golechha



Nik Zur

Zuk brings phenomenal network security and industry expertise to Palo Alto.

Lee Klarich – Chief Product Officer

Lee has served as the head of product management for Palo Alto since 2006, overseeing product strategy and playing an important role in delivering their Next-Generation Security Platform. Prior to Palo Alto, Lee was the director of product management for Juniper Networks, where he was responsible for firewall/VPN platforms. He received his engineering degree from Cornell University.



Lee Klarich

Q2 Earnings Report

Q2 Earnings

Revenue: \$1.3B vs \$1.28B Est
 Non-GAAP EPS: \$1.74 vs \$1.64 Est

 Q2 \$1M+ Deals: 221
 TTM \$1M+ Customers: 1,077

Guidance

Q3 Revenue: \$1.345B-\$1.365B
 Cons Est: \$1.345B
 Q3 Non-GAAP EPS \$1.65-\$1.68
 Cons Est: \$1.63
 FY '22 Revenue: \$5.425B-\$5.475B
 Cons Est: \$5.386B
 FY '22 Non-GAAP EPS: \$7.23-\$7.30
 Cons Est: \$7.29

Stock Catalysts

Secular Growth of Cyber Security Threats

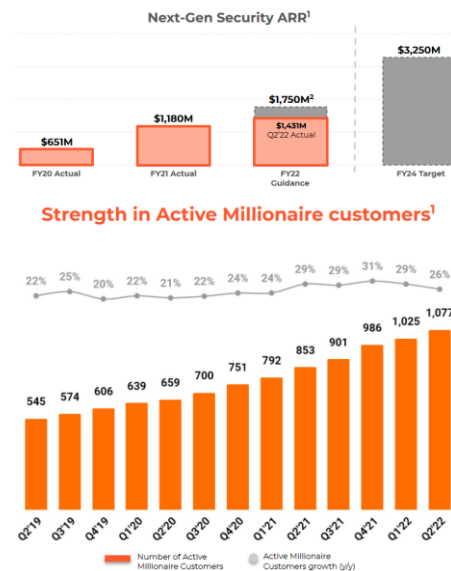
Cyber security is in essence a defensive sector. The volume of cyber-attacks has increased and will continue to increase irrespective of economic and financial conditions. The nature of attacks has changed, however, with malware largely ceding dominance to phishing attacks. It is more straightforward to defend against malware attacks with NGFWs and similar cyber security monitoring and defense. Phishing attacks are far more difficult to monitor and defend against with traditional cyber security tools. Companies, therefore, need to vastly increase their cyber-security; either with a multitude of endpoint products or with consolidated products such as Palo Alto's offerings which provide enterprises with complete monitoring and defense.

Growth of Attack Surfaces

The pandemic rapidly forced the adoption of hybrid working which rapidly increased the attack surface companies needed to manage. Over the next several years, as companies plan around hybrid work, they will likely replace meshes of security products with consolidated offerings to save resources.

Continuing Shift to Cloud

The shift from on-premise datacenters to the cloud has altered the security needs of companies away from traditional firewalls to cloud security platforms. Now to shift to hybrid clouds and multi-cloud implementations will again shift security needs towards Palo Alto's Prisma Cloud offering



which enables them to handle on-premise and public cloud needs simultaneously.

Investment Risks

Competitive Environment

Palo Alto does not have a majority market share in any cybersecurity sub-sector. Furthermore, most participants have recognized the evolving for companies' cyber security needs away from traditional firewalls and have adjusted their strategies to varying degrees. Consolidation is also likely to occur, forcing Palo Alto to compete against larger competitors. Nevertheless, Palo Alto's holistic, comprehensive offering provides unmatched value for customers, enabling vast cost and resource savings. Additionally, the TAM in the space is growing quickly enough to accommodate several competitors.

High Sales and Marketing Expenditures

Sales and Marketing expenditures totaled 45.9% of sales in FY 2021. This presents a significant downward impact on profitability. However, this ratio has decreased steadily from 101.9% in FY 2017, even as they have grown in absolute dollar terms from \$53.7M in FY 2017 to \$401.3M. This suggests that promotional pricing and marketing outreach have been effective in quickly growing the customer base and the company's moat and value proposition are strong enough to maintain these customers at full prices.

Interest Rates and Economic Slowdown

In response to the invasion of Ukraine and investors' flight to safety in American treasuries, yields have cut back from their previously rapidly expanding highs. Given the inflationary impact, however, this is unlikely to continue, and shorter-term interest rates are likely to continue to rise in response to rate hikes by the Federal Reserve and quantitative tightening reducing liquidity. As a growth stock, the valuation of Palo Alto is likely to decrease even as fundamentals remain unchanged. Fundamentals are likely to remain unchanged even in an economic recession due to the secular growth of cyber-attacks. Therefore, a price target should be conservative in terms of valuation, but earnings growth is likely currently underappreciated by the market.

Price Target and Valuation

Assumptions:

- FY 2024 EPS of \$12.10 (10% above consensus \$11.00)
- P/E [Consensus EPS FY2024] of 50.68

Current Price Target = $50.68 \times \$12.10 = \613.26

Upside = 10%