

## Palo Alto Networks

## 2Q24 preview: Continued billings softness offset by strength in NGS

Reiterate Rating: NEUTRAL | PO: 390.00 USD | Price: 368.26 USD

## Improved view of L-T trends, yet we expect soft billings

We preview our 2Q24 expectations in conjunction with our broader [Cybersecurity channel check note](#) published today. In general, billings might continue to be soft, driven by weak macro trends and the rising cost of money, yet our checks suggest Palo Alto Networks continues to see strong trends, supported by its NGS portfolio and strength in ELAs. NGS ARR continues to track well, and we slightly increase our NGS ARR growth expectations for 2Q24/FY24 to be more in-line with Street estimates. We increase our PO to \$390 from \$340 prior, yet maintain our billings and FCF estimates below the Street. See Financial Highlights on Page 3 for BofA estimates vs. Street estimates.

## Executing well on transition to software

While 1Q24 product revenue growth of 3.4% YoY was in-line with appliance market growth of 0%-5%, we highlight that the software transition is offsetting firewall growth reversion. Per Gartner, Palo Alto's firewall appliance revenue was down 33.4% YoY in 1Q, however, was more than offset by triple-digit growth in virtual firewall and SD-WAN software (Exhibit 3). While we question Gartner's high growth estimates, we believe it is directionally correct. At a high level, discussions with channel partners pointed towards a slight improvement of firewall demand in 2Q, following tough comps over the last few quarters on the back of the strong deployment cycle in 2022. Our channel checks also indicated expectations for continued improvement into 3Q, with appliance demand accelerating into F4Q24 and beyond. We note that Street expectations already bake in major growth deceleration due to tough comps, and we model product revenue growth of 2.7%, 1.8% and 0.7%, respectively, over the next three quarters.

## NGS supports long-term trends

We expect Palo Alto to exhibit continued traction on NGS ARR growth, with SASE ARR growing above the NGS average, as well as solid cross-sell momentum in Prisma Cloud and Cortex. Our channel checks indicated consistent, solid growth in Prisma SASE. Discussions with channel partners also highlighted Cloud security as a key growth driver in 2024 and pointed to solid demand on the number of Palo Alto's modules. However, our checks also flagged weakness in Prisma Cloud cohesiveness. We increase our NGS estimates and model NGS ARR growth of 46.3% in 2Q, 41% in 3Q, and 35.4% YoY in 4Q.

Discussion continues on Page 3.

Estimates (Jul) (US\$)	2022A	2023A	2024E	2025E	2026E
EPS	2.52	4.44	5.50	6.45	7.74
GAAP EPS	(0.88)	1.28	1.59	1.75	2.09
EPS Change (YoY)	22.9%	76.2%	23.9%	17.3%	20.0%
Consensus EPS (Bloomberg)			5.53	6.52	7.84
DPS	0	0	0	0	0
Valuation (Jul)					
P/E	146.1x	82.9x	67.0x	57.1x	47.6x
GAAP P/E	NM	287.7x	231.6x	210.4x	176.2x
EV / EBITDA*	86.3x	58.9x	47.0x	39.4x	33.0x
Free Cash Flow Yield*	1.6%	2.4%	2.8%	3.3%	3.8%

\* For full definitions of *IQmethod*<sup>SM</sup> measures, see page 8.

14 February 2024

## Equity

## Key Changes

(US\$)	Previous	Current
Price Obj.	340.00	390.00

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## Stock Data

Price	368.26 USD
Price Objective	390.00 USD
Date Established	14-Feb-2024
Investment Opinion	B-2-9
52-Week Range	164.41 USD - 380.84 USD
Mrkt Val (mn) / Shares Out (mn)	110,036 USD / 298.8
Free Float	98.8%
Average Daily Value (mn)	1156.51 USD
BofA Ticker / Exchange	PANW / NYS
Bloomberg / Reuters	PANW US / PANW.OQ
ROE (2024E)	68.5%
Net Dbt to Eqty (Jul-2023A)	49.0%
ESGMeter™	High

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Timestamp: 14 February 2024 06:02AM EST

# iQprofile<sup>SM</sup> Palo Alto Networks

## iQmethod<sup>SM</sup> – Bus Performance\*

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Return on Capital Employed	11.4%	15.8%	16.2%	14.6%	13.7%
Return on Equity	190.1%	147.1%	68.5%	45.3%	36.0%
Operating Margin	19.0%	24.1%	26.4%	27.4%	28.9%
Free Cash Flow	1,792	2,631	3,039	3,590	4,201

## iQmethod<sup>SM</sup> – Quality of Earnings\*

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash Realization Ratio	2.5x	1.9x	1.7x	1.7x	1.6x
Asset Replacement Ratio	0.7x	0.5x	0.6x	0.5x	1.8x
Tax Rate	22.0%	22.0%	22.0%	22.0%	22.0%
Net Debt-to-Equity Ratio	NM	49.0%	-56.1%	-91.9%	-108.3%
Interest Cover	NA	NA	NA	NA	NA

## Income Statement Data (Jul)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Sales	5,502	6,893	8,177	9,644	11,305
% Change	29.3%	25.3%	18.6%	17.9%	17.2%
Gross Profit	4,049	5,230	6,286	7,386	8,661
% Change	26.5%	29.2%	20.2%	17.5%	17.3%
EBITDA	1,325	1,942	2,435	2,904	3,465
% Change	24.7%	46.5%	25.4%	19.2%	19.3%
Net Interest & Other Income	(14)	186	249	237	256
<b>Net Income (Adjusted)</b>	<b>803</b>	<b>1,440</b>	<b>1,878</b>	<b>2,249</b>	<b>2,753</b>
<b>% Change</b>	<b>30.8%</b>	<b>79.4%</b>	<b>30.4%</b>	<b>19.8%</b>	<b>22.4%</b>

## Free Cash Flow Data (Jul)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Net Income from Cont Operations (GAAP)	803	1,440	1,878	2,249	2,753
Depreciation & Amortization	283	282	277	258	194
Change in Working Capital	521	563	794	1,010	1,408
Deferred Taxation Charge	NA	NA	NA	NA	NA
Other Adjustments, Net	379	492	254	205	186
Capital Expenditure	(193)	(146)	(165)	(132)	(339)
<b>Free Cash Flow</b>	<b>1,792</b>	<b>2,631</b>	<b>3,039</b>	<b>3,590</b>	<b>4,201</b>
<b>% Change</b>	<b>29.2%</b>	<b>46.8%</b>	<b>15.5%</b>	<b>18.1%</b>	<b>17.0%</b>
Share / Issue Repurchase	(756)	(14)	20	0	0
Cost of Dividends Paid	0	0	0	0	0
Change in Debt	0	0	0	0	0

## Balance Sheet Data (Jul)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash & Equivalents	2,119	1,135	4,041	7,631	11,832
Trade Receivables	2,143	2,463	2,813	3,806	4,811
Other Current Assets	2,154	2,450	2,573	3,102	3,702
Property, Plant & Equipment	358	355	268	141	287
Other Non-Current Assets	5,481	8,099	8,895	9,416	9,992
<b>Total Assets</b>	<b>12,254</b>	<b>14,501</b>	<b>18,590</b>	<b>24,097</b>	<b>30,624</b>
Short-Term Debt	0	0	0	0	0
Other Current Liabilities	4,630	5,746	6,499	7,990	9,473
Long-Term Debt	3,677	1,992	1,947	1,947	1,947
Other Non-Current Liabilities	3,737	5,015	6,411	7,973	10,079
<b>Total Liabilities</b>	<b>12,044</b>	<b>12,753</b>	<b>14,856</b>	<b>17,910</b>	<b>21,499</b>
<b>Total Equity</b>	<b>210</b>	<b>1,748</b>	<b>3,733</b>	<b>6,187</b>	<b>9,126</b>
<b>Total Equity &amp; Liabilities</b>	<b>12,254</b>	<b>14,501</b>	<b>18,590</b>	<b>24,097</b>	<b>30,624</b>

\* For full definitions of iQmethod<sup>SM</sup> measures, see page 8.

## Company Sector

Data Networking

## Company Description

Palo Alto Networks develops and sells network security solutions, ranging from solutions in appliance form factors to software and cloud based solutions.

## Investment Rationale

Our Neutral is based on weakness in billings trends and shortening of duration, as customers are demanding greater discounts or shorter deal duration, driven by the weak macroenvironment. This suggests risk of further deterioration to billings, but also a possible negative impact on FCF generation and challenges to hit the LT growth targets. On the positive side, we favor PANW's technological and product leadership which should help to solidify Palo Alto as a cybersecurity leader longer-term.

## Stock Data

Average Daily Volume 3,140,461

## Quarterly Earnings Estimates

	2023	2024
Q1	0.83A	1.38A
Q2	1.05A	1.30E
Q3	1.10A	1.29E
Q4	1.44A	1.54E

## Further risk to billings on continued macro weakness

Our checks indicate continued weakness in the macro environment and financing activity into 2Q, which might pose a threat to billings again. Management guided 2Q billings to grow 16.6% QoQ, which is a high bar given the guidance is in-line with historical seasonality. As such, our model calls for 15.4% QoQ billings growth in 2Q vs. Street's 17.0%, translating to annualized growth of 15.1% YoY vs. 16.7%, respectively. We also believe weak billings trends reported by CrowdStrike, Zscaler, Fortinet, and SentinelOne last quarter also suggest risk of further deterioration to billings, and we model 16% and 18% YoY billings growth in 3Q24 and 4Q24, slightly below Street's 16.8% and 18.2%. Billings weakness could also drive a negative impact on FCF, and we model 2Q, 3Q, and 4Q FCF margin of 30.5%, 22.9% and 21.1%, accordingly, below Street's respective 31.2%, 23.8%, and 21.7% estimates.

## Financial Highlights

### Exhibit 1: BofA Estimates vs. Street Estimates

We slightly increase our NGS ARR estimates

	F2Q24 Expectations				F3Q24 Expectations				FY24 Expectations			
	BofA	Consensus	Delta		BofA	Consensus	Delta		BofA	Consensus	Delta	
<b>NGS ARR</b>	<b>\$3,411.7</b>	<b>\$3,411.3</b>	<b>0.0%</b>		<b>\$3,629.3</b>	<b>\$3,630.6</b>	<b>0.0%</b>		<b>\$4,001.1</b>	<b>\$4,001.6</b>	<b>0.0%</b>	
YoY growth (%)	46.3%	46.3%			41.0%	41.0%			35.4%		35.4%	
<b>Billings</b>	<b>\$2,335.6</b>	<b>\$2,368.6</b>	<b>-1.4%</b>		<b>\$2,616.8</b>	<b>\$2,635.9</b>	<b>-0.7%</b>		<b>\$10,704.2</b>	<b>\$10,766.3</b>	<b>-0.6%</b>	
YoY growth (%)	15.1%	16.7%			16.0%	16.8%			16.4%	17.1%		
<b>Revenue</b>	<b>\$1,970.1</b>	<b>\$1,971.1</b>	<b>-0.1%</b>		<b>\$2,037.1</b>	<b>\$2,038.5</b>	<b>-0.1%</b>		<b>\$8,177.1</b>	<b>\$8,177.6</b>	<b>0.0%</b>	
YoY growth (%)	19.0%	19.1%			18.4%	18.5%			18.6%	18.6%		
<b>Gross margin (%)</b>	<b>76.5%</b>	<b>76.6%</b>	<b>-0.1bps</b>		<b>76.4%</b>	<b>76.4%</b>	<b>0.1bps</b>		<b>76.9%</b>	<b>76.9%</b>	<b>0.0bps</b>	
<b>Operating margin (%)</b>	<b>25.7%</b>	<b>25.9%</b>	<b>-0.2bps</b>		<b>24.8%</b>	<b>24.9%</b>	<b>-0.1bps</b>		<b>26.4%</b>	<b>26.5%</b>	<b>-0.1bps</b>	
<b>EPS</b>	<b>\$1.30</b>	<b>\$1.30</b>	<b>-0.2%</b>		<b>\$1.29</b>	<b>\$1.30</b>	<b>-0.5%</b>		<b>\$5.50</b>	<b>\$5.53</b>	<b>-0.6%</b>	
<b>Free cash flow</b>	<b>\$601.37</b>	<b>\$614.73</b>	<b>-2.2%</b>		<b>\$465.55</b>	<b>\$484.36</b>	<b>-3.9%</b>		<b>\$3,038.79</b>	<b>\$3,086.20</b>	<b>-1.5%</b>	
FCF margin (%)	30.5%	31.2%			22.9%	23.8%			37.2%	37.7%		

Source: BofA Global Research estimates, Bloomberg

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### Exhibit 2: Summary of Model Changes

We fine-tune our estimates to reflect continued traction on NGS ARR growth, yet also near-term concerns on billings

	Sales			Non-GAAP EPS			Billings			NGS ARR		
	Old	New	Delta	Old	New	Delta	Old	New	Delta	Old	New	Delta
<b>FY24</b>												
Q1	1,878,100	1,878,100	-	\$1.38	\$1.38	-	2,024,500	2,024,500	-	3,230,000	3,230,000	-
Q2E	1,970,127	1,970,127	-	\$1.30	\$1.30	0.00	2,335,563	2,335,563	-	3,334,760	3,411,716	76,956
Q3E	2,034,156	2,037,111	2,955	\$1.27	\$1.29	0.02	2,632,458	2,616,778	(15,680)	3,577,860	3,629,340	51,480
Q4E	2,292,494	2,291,750	(744)	\$1.52	\$1.54	0.02	3,707,783	3,727,358	19,575	3,975,953	4,001,070	25,118
<b>Total</b>	<b>8,174,877</b>	<b>8,177,088</b>	<b>2,211</b>	<b>\$5.47</b>	<b>\$5.50</b>	<b>0.04</b>	<b>10,700,305</b>	<b>10,704,200</b>	<b>3,895</b>	<b>3,975,953</b>	<b>4,001,070</b>	<b>25,118</b>
<b>FY25</b>												
Q1E	2,246,644	2,218,414	(28,230)	\$1.44	\$1.49	0.06	2,447,615	2,363,843	(83,772)	4,263,600	4,279,750	16,150
Q2E	2,336,510	2,327,116	(9,393)	\$1.52	\$1.54	0.02	2,769,330	2,756,801	(12,529)	4,401,883	4,486,407	84,523
Q3E	2,399,595	2,406,238	6,643	\$1.58	\$1.56	(0.02)	3,110,811	3,059,646	(51,165)	4,686,997	4,739,918	52,921
Q4E	2,670,750	2,692,581	21,831	\$1.89	\$1.86	(0.03)	4,369,272	4,333,221	(36,050)	5,168,738	5,181,386	12,647
<b>Total</b>	<b>9,653,499</b>	<b>9,644,350</b>	<b>(9,149)</b>	<b>\$6.42</b>	<b>\$6.45</b>	<b>0.03</b>	<b>12,697,028</b>	<b>12,513,512</b>	<b>(183,517)</b>	<b>5,168,738</b>	<b>5,181,386</b>	<b>12,647</b>
<b>FY26</b>												
Q1E	2,646,713	2,614,496	(32,217)	\$1.74	\$1.81	0.06	2,946,993	2,834,886	(112,107)	5,500,044	5,490,919	(9,125)
Q2E	2,741,995	2,732,148	(9,846)	\$1.84	\$1.85	0.01	3,234,878	3,222,788	(12,090)	5,634,410	5,706,709	72,299
Q3E	2,805,061	2,822,309	17,249	\$1.90	\$1.87	(0.03)	3,653,752	3,620,221	(33,531)	5,952,486	6,005,476	52,990
Q4E	3,113,617	3,135,585	21,968	\$2.21	\$2.20	(0.01)	5,049,913	5,037,655	(12,258)	6,409,235	6,476,732	67,497
<b>Total</b>	<b>11,307,386</b>	<b>11,304,539</b>	<b>(2,847)</b>	<b>\$7.70</b>	<b>\$7.74</b>	<b>0.03</b>	<b>14,885,537</b>	<b>14,715,550</b>	<b>(169,987)</b>	<b>6,409,235</b>	<b>6,476,732</b>	<b>67,497</b>

Source: BofA Global Research estimates, company report

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**Exhibit 3: Palo Alto Networks' Product Revenue, Broken out by Segment (\$mn), Fiscal Year**

In 1Q24, Firewall appliances were 47.7% of product revenue, vs. 74% in f1 Q23, on reversion to the mean, yet product growth was supported by virtual firewall and SD-WAN

Fiscal Year (in \$mn)	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24	3Q24	4Q24	FY21	FY22	FY23
<b>Network Firewall (Hardware)</b>	<b>\$195.7</b>	<b>\$208.6</b>	<b>\$237.0</b>	<b>\$282.2</b>	<b>\$238.4</b>	<b>\$246.9</b>	<b>\$286.9</b>	<b>\$336.0</b>	<b>\$244.0</b>	<b>\$255.0</b>	<b>\$257.8</b>	<b>\$318.8</b>	<b>\$162.6</b>				<b>\$923.5</b>	<b>\$1,108.2</b>	<b>\$1,075.7</b>
QoQ Chg (%)	-28.1%	6.6%	13.6%	19.0%	-15.5%	3.6%	16.2%	17.1%	-27.4%	4.5%	1.1%	23.7%	-49.0%						
YoY Chg (%)	nmf	nmf	-10.7%	3.6%	21.8%	18.3%	21.0%	19.1%	2.4%	3.3%	-10.1%	-5.1%	-33.4%				nmf	20.0%	-2.9%
% of Product Revenue	82.5%	81.9%	82.0%	83.1%	80.7%	80.2%	81.6%	82.3%	74.0%	72.3%	66.4%	62.8%	47.7%				82.4%	81.3%	68.1%
<b>Virtual Firewall</b>	<b>\$18.0</b>	<b>\$19.1</b>	<b>\$22.5</b>	<b>\$26.3</b>	<b>\$29.0</b>	<b>\$31.6</b>	<b>\$34.0</b>	<b>\$38.5</b>	<b>\$51.7</b>	<b>\$62.2</b>	<b>\$75.7</b>	<b>\$114.8</b>	<b>\$108.2</b>				<b>\$85.9</b>	<b>\$133.2</b>	<b>\$304.3</b>
QoQ Chg (%)	5.7%	6.4%	17.6%	16.9%	10.4%	8.9%	7.7%	13.2%	34.2%	20.3%	21.8%	51.6%	-5.8%						
YoY Chg (%)	nmf	nmf	45.0%	54.5%	61.3%	65.1%	51.2%	46.5%	78.0%	96.7%	122.5%	198.0%	109.3%				nmf	55.0%	128.5%
% of Product Revenue	7.6%	7.5%	7.8%	7.7%	9.8%	10.3%	9.7%	9.4%	15.7%	17.6%	19.5%	22.6%	31.7%				7.7%	9.8%	19.3%
<b>SD-WAN Equipment (Software)</b>	<b>\$15.8</b>	<b>\$18.5</b>	<b>\$20.2</b>	<b>\$21.4</b>	<b>\$19.4</b>	<b>\$20.4</b>	<b>\$21.1</b>	<b>\$23.1</b>	<b>\$23.6</b>	<b>\$24.6</b>	<b>\$37.6</b>	<b>\$51.0</b>	<b>\$49.0</b>				<b>\$75.8</b>	<b>\$84.1</b>	<b>\$136.9</b>
QoQ Chg (%)	45.1%	17.1%	9.4%	5.7%	-9.1%	5.3%	3.3%	9.2%	2.4%	4.1%	53.0%	35.7%	-4.1%						
YoY Chg (%)	nmf	nmf	nmf	96.5%	23.1%	10.6%	4.5%	8.0%	21.6%	20.3%	78.1%	121.2%	107.3%				nmf	10.9%	62.8%
% of Product Revenue	6.6%	7.3%	7.0%	6.3%	6.6%	6.6%	6.0%	5.7%	7.2%	7.0%	9.7%	10.1%	14.4%				6.8%	6.2%	8.7%
<b>SD-WAN Equipment (Hardware)</b>	<b>\$7.8</b>	<b>\$8.5</b>	<b>\$9.2</b>	<b>\$9.6</b>	<b>\$8.6</b>	<b>\$9.1</b>	<b>\$9.5</b>	<b>\$10.5</b>	<b>\$10.7</b>	<b>\$11.1</b>	<b>\$17.0</b>	<b>\$22.8</b>	<b>\$21.4</b>				<b>\$35.0</b>	<b>\$37.7</b>	<b>\$61.6</b>
QoQ Chg (%)	44.8%	8.5%	8.2%	4.6%	-9.7%	5.1%	4.4%	10.3%	1.9%	4.4%	52.8%	34.0%	-6.0%						
YoY Chg (%)	nmf	nmf	nmf	77.8%	10.8%	7.4%	3.6%	9.3%	23.3%	22.5%	79.2%	117.7%	100.8%				nmf	7.7%	63.4%
% of Product Revenue	3.3%	3.3%	3.2%	2.8%	2.9%	3.0%	2.7%	2.6%	3.2%	3.2%	4.4%	4.5%	6.3%				3.1%	2.8%	3.9%
<b>Product Revenue</b>	<b>\$237.3</b>	<b>\$254.7</b>	<b>\$288.9</b>	<b>\$339.4</b>	<b>\$295.5</b>	<b>\$308.0</b>	<b>\$351.5</b>	<b>\$408.1</b>	<b>\$330.0</b>	<b>\$352.9</b>	<b>\$388.1</b>	<b>\$507.4</b>	<b>\$341.1</b>				<b>\$1,120.3</b>	<b>\$1,363.1</b>	<b>\$1,578.4</b>
QoQ Chg (%)	-22.3%	7.3%	13.4%	17.5%	-12.9%	4.2%	14.1%	16.1%	-19.1%	6.9%	10.0%	30.7%	-32.8%						
YoY Chg (%)	nmf	3.3%	2.8%	11.1%	24.5%	20.9%	21.7%	20.2%	11.7%	14.6%	10.4%	24.3%	3.4%				nmf	21.7%	15.8%

Source: Company report, Gartner, BofA Global Research estimates

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**Exhibit 4: Network Firewall Market (\$mn), Calendar Year**

The network firewall market declined 2% YoY in c3Q23/f1 Q23, while Palo Alto declined 3.3% YoY, resulting in a modest 40bps share loss

Calendar Year (\$mn)	1Q20	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	CY20	CY21	CY22
<b>Network Firewalls</b>	<b>\$2,078.6</b>	<b>\$2,402.8</b>	<b>\$2,518.0</b>	<b>\$2,895.3</b>	<b>\$2,355.3</b>	<b>\$2,643.6</b>	<b>\$2,743.2</b>	<b>\$3,199.2</b>	<b>\$2,680.6</b>	<b>\$2,917.4</b>	<b>\$2,983.3</b>	<b>\$3,219.6</b>	<b>\$2,701.4</b>	<b>\$2,978.8</b>	<b>\$2,924.5</b>		<b>\$9,894.7</b>	<b>\$10,941.2</b>	<b>\$11,800.9</b>
QoQ Chg (%)	nmf	15.6%	4.8%	15.0%	-18.7%	12.2%	3.8%	16.6%	-16.2%	8.8%	2.3%	7.9%	-16.1%	10.3%	-1.8%				
YoY Chg (%)	nmf	nmf	nmf	nmf	13.3%	10.0%	8.9%	10.5%	13.8%	10.4%	8.8%	0.6%	0.8%	2.1%	-2.0%		nmf	10.6%	7.9%
<b>Market Share (%)</b>																			
Palo Alto Networks	25.9%	23.6%	22.2%	19.8%	25.6%	25.1%	24.8%	21.9%	27.8%	27.0%	25.5%	22.2%	26.0%	25.9%	25.1%		22.6%	24.2%	25.5%
Fortinet	14.8%	13.8%	13.9%	13.7%	15.8%	15.4%	15.9%	14.8%	16.9%	16.8%	17.7%	17.5%	19.8%	18.4%	19.3%		14.0%	15.4%	17.2%
Cisco	15.4%	14.5%	16.9%	12.7%	15.3%	12.5%	12.3%	13.7%	14.7%	13.7%	13.6%	11.9%	14.1%	13.0%	13.3%		14.8%	13.4%	13.4%
Check Point	14.4%	13.0%	12.4%	12.0%	13.0%	11.9%	11.5%	10.9%	11.7%	11.3%	11.1%	11.4%	12.0%	11.3%	11.6%		12.8%	11.8%	11.4%
Huawei	2.6%	5.9%	4.1%	8.4%	3.0%	5.2%	4.0%	7.1%	3.1%	4.5%	3.4%	7.8%	3.0%	5.2%	4.0%		5.5%	5.0%	4.8%
SonicWall	4.4%	3.9%	3.9%	3.3%	4.6%	4.2%	4.2%	3.7%	4.5%	4.2%	4.1%	3.7%	4.6%	4.0%	4.0%		3.8%	4.1%	4.1%
H3C	1.5%	3.4%	4.2%	4.0%	2.1%	4.0%	4.8%	3.6%	2.3%	3.6%	4.6%	3.7%	2.5%	3.8%	3.3%		3.4%	3.7%	3.6%
Sophos	3.0%	2.7%	2.7%	2.6%	3.1%	2.7%	2.6%	2.3%	2.9%	2.6%	2.5%	2.4%	3.0%	2.7%	2.9%		2.7%	2.7%	2.6%
WatchGuard	3.1%	2.6%	3.1%	3.2%	3.0%	2.8%	2.8%	2.5%	2.8%	2.6%	2.6%	2.3%	2.6%	2.3%	2.4%		3.0%	2.7%	2.5%
Juniper	3.5%	3.3%	2.8%	2.9%	3.6%	3.4%	2.7%	2.3%	2.9%	2.6%	1.8%	1.7%	1.6%	1.6%	1.4%		3.1%	2.9%	2.2%
Other Vendors	11.3%	13.2%	13.7%	17.5%	11.0%	12.8%	14.3%	17.2%	10.6%	11.1%	13.2%	15.5%	10.7%	11.8%	12.6%		14.2%	14.1%	12.7%

Source: Gartner

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## Exhibit 5: Income Statement

Updated summary of financials; we increase our FY24 NGS ARR estimate to \$4,001.1mn

	FY2023				FY2024E				FY2025E				FY2026E								
Fiscal Year Ends in July (in \$thousands except EPS)	Q1 Oct-22	Q2 Jan-23	Q3 Apr-23	Q4 Jul-23	Q1 Oct-23	Q2 Jan-24	Q3 Apr-24	Q4 Jul-24	Q1 Oct-24	Q2 Jan-25	Q3 Apr-25	Q4 Jul-25	Q1 Oct-25	Q2 Jan-26	Q3 Apr-26	Q4 Jul-26	FY2022	FY2023	FY2024E	FY2025E	FY2026E
Product	330,000	352,900	388,100	507,400	341,100	362,503	395,200	511,060	352,728	379,320	409,061	530,438	360,800	387,965	417,702	539,321	1,363,100	1,578,400	1,609,863	1,671,547	1,705,788
Services	1,233,400	1,302,200	1,332,800	1,445,900	1,537,000	1,607,624	1,641,912	1,780,690	1,865,686	1,947,796	1,997,178	2,162,142	2,253,695	2,344,183	2,404,607	2,596,265	4,138,400	5,314,300	6,567,225	7,972,803	9,598,751
<b>Total Revenues</b>	<b>1,563,400</b>	<b>1,655,100</b>	<b>1,720,900</b>	<b>1,953,300</b>	<b>1,878,100</b>	<b>1,970,127</b>	<b>2,037,111</b>	<b>2,291,750</b>	<b>2,218,414</b>	<b>2,327,116</b>	<b>2,406,238</b>	<b>2,692,581</b>	<b>2,614,496</b>	<b>2,732,148</b>	<b>2,822,309</b>	<b>3,135,585</b>	<b>5,501,500</b>	<b>6,892,700</b>	<b>8,177,088</b>	<b>9,644,350</b>	<b>11,304,539</b>
YoY Growth	25.3%	25.7%	24.1%	26.0%	20.1%	19.0%	18.4%	17.3%	18.1%	18.1%	18.1%	17.5%	17.9%	17.4%	17.3%	16.5%	29.3%	25.3%	18.6%	17.9%	17.2%
Cost of sales (Non-GAAP)	401,700	406,000	410,700	444,000	412,300	462,980	480,363	535,511	513,057	548,010	569,051	628,432	604,670	642,459	664,394	731,670	1,452,500	1,662,400	1,891,154	2,258,551	2,643,194
Total Gross Profit (Non-GAAP)	1,161,700	1,249,100	1,310,200	1,509,300	1,465,800	1,507,147	1,556,748	1,756,239	1,705,357	1,779,106	1,837,187	2,064,149	2,009,826	2,089,689	2,157,915	2,403,915	4,049,000	5,230,300	6,285,934	7,385,799	8,661,345
Total Gross Margin (Non-GAAP)	74.3%	75.5%	76.1%	77.3%	78.0%	76.5%	76.4%	76.6%	76.9%	76.5%	76.4%	76.7%	76.9%	76.5%	76.5%	76.7%	73.6%	75.9%	76.9%	76.6%	76.6%
Research & Development	251,400	270,100	281,400	294,500	285,600	305,592	326,983	356,412	342,155	359,263	370,041	395,944	388,025	407,426	423,723	457,621	926,300	1,097,400	1,274,587	1,467,404	1,676,796
Sales and Marketing	518,800	527,700	547,400	574,100	571,200	611,184	635,631	686,482	665,887	699,182	727,149	778,049	762,488	792,988	824,708	865,943	1,805,900	2,168,000	2,504,497	2,870,268	3,246,127
General and Admin	69,100	74,500	74,700	86,700	79,700	84,482	88,706	95,803	92,929	98,504	102,444	108,591	107,505	112,880	118,524	128,006	274,000	305,000	348,691	402,468	466,916
Total Operating Expenses (Non-GAAP)	839,300	872,300	903,500	955,300	936,500	1,001,258	1,051,321	1,138,696	1,100,971	1,156,949	1,199,635	1,282,585	1,258,019	1,313,295	1,366,955	1,451,571	3,006,200	3,570,400	4,127,775	4,740,140	5,389,840
<b>Operating Income (Non-GAAP)</b>	<b>322,400</b>	<b>376,800</b>	<b>406,700</b>	<b>554,000</b>	<b>529,300</b>	<b>505,889</b>	<b>505,427</b>	<b>617,543</b>	<b>604,386</b>	<b>622,157</b>	<b>637,552</b>	<b>781,564</b>	<b>751,807</b>	<b>776,394</b>	<b>790,960</b>	<b>952,345</b>	<b>1,042,800</b>	<b>1,659,900</b>	<b>2,158,159</b>	<b>2,645,659</b>	<b>3,271,505</b>
Operating Margin (Non-GAAP)	20.6%	22.8%	23.6%	28.4%	28.2%	25.7%	24.8%	26.9%	27.2%	26.7%	26.5%	29.0%	28.8%	28.4%	28.0%	30.4%	19.0%	24.1%	26.4%	27.4%	28.9%
<b>Total Other Income (Non-GAAP)</b>	<b>19,200</b>	<b>48,500</b>	<b>54,100</b>	<b>64,500</b>	<b>68,900</b>	<b>60,000</b>	<b>60,000</b>	<b>60,000</b>	<b>57,000</b>	<b>62,000</b>	<b>62,000</b>	<b>56,000</b>	<b>65,000</b>	<b>65,000</b>	<b>65,000</b>	<b>61,000</b>	<b>(13,900)</b>	<b>186,300</b>	<b>248,900</b>	<b>237,000</b>	<b>256,000</b>
Non-GAAP Income Tax Expense / (Benefit)	75,200	93,600	101,400	136,000	131,400	124,303	124,201	148,828	145,279	150,281	153,663	183,978	179,419	184,820	188,019	222,590	226,400	406,200	528,732	633,202	774,848
<b>Non-GAAP Net Income Attributable to Common</b>	<b>266,400</b>	<b>331,700</b>	<b>359,400</b>	<b>482,500</b>	<b>466,800</b>	<b>441,586</b>	<b>441,226</b>	<b>528,714</b>	<b>516,106</b>	<b>533,876</b>	<b>545,889</b>	<b>653,586</b>	<b>637,388</b>	<b>656,574</b>	<b>667,940</b>	<b>790,754</b>	<b>802,500</b>	<b>1,440,000</b>	<b>1,878,327</b>	<b>2,249,457</b>	<b>2,752,657</b>
Non-GAAP EPS	\$0.83	\$1.05	\$1.10	\$1.44	\$1.38	\$1.30	\$1.29	\$1.54	\$1.49	\$1.54	\$1.56	\$1.86	\$1.81	\$1.85	\$1.87	\$2.20	\$2.52	\$4.44	\$5.50	\$6.45	\$7.74
GAAP EPS	\$0.06	\$0.25	\$0.31	\$0.64	\$0.56	\$0.21	\$0.24	\$0.58	\$0.55	\$0.22	\$0.28	\$0.71	\$0.65	\$0.27	\$0.34	\$0.82	\$(0.88)	\$1.28	\$1.59	\$1.75	\$2.09
Diluted share count	320,600	316,400	325,400	335,200	338,200	340,500	342,408	344,203	345,663	347,625	349,573	351,532	352,860	354,605	356,814	358,666	318,300	324,400	341,328	348,599	355,736
Operating Cash Flow	1,236,700	694,600	432,100	414,100	1,526,000	642,747	506,292	528,497	1,486,136	816,605	640,195	779,115	1,648,818	1,054,665	892,984	943,849	1,984,700	2,777,500	3,203,536	3,722,051	4,540,317
OCF Margin	79.1%	42.0%	25.1%	21.2%	81.3%	32.6%	24.9%	23.1%	67.0%	35.1%	26.6%	28.9%	63.1%	38.6%	31.6%	30.1%	36.1%	40.3%	39.2%	38.6%	40.2%
Free Cash Flow	1,197,100	656,300	400,900	376,900	1,489,200	601,375	465,550	482,662	1,441,768	779,371	611,320	757,574	1,570,383	972,701	808,315	849,782	1,791,900	2,631,200	3,038,787	3,590,033	4,201,181
FCF Margin	77%	40%	23%	19%	79%	31%	23%	21%	65%	33%	25%	28%	60%	36%	29%	27%	32.6%	38.2%	37.2%	37.2%	37.2%
Cash and cash equivalent	5,898,400	6,167,500	6,668,000	5,437,900	6,882,700	7,484,075	7,949,624	8,432,287	9,874,054	10,653,425	11,264,746	12,022,320	13,592,703	14,565,404	15,373,719	16,223,501	4,686,400	5,437,900	8,432,287	12,022,320	16,223,501
Total debt	3,678,600	3,680,300	3,682,100	1,991,500	1,946,700	1,946,700	1,946,700	1,946,700	1,946,700	1,946,700	1,946,700	1,946,700	1,946,700	1,946,700	1,946,700	1,946,700	3,676,800	1,991,500	1,946,700	1,946,700	1,946,700
Net cash	2,219,800	2,487,200	2,985,900	3,446,400	4,936,000	5,537,375	6,002,924	6,485,587	7,927,354	8,706,725	9,318,046	10,075,620	11,646,003	12,618,704	13,427,019	14,276,801	1,009,600	3,446,400	6,485,587	10,075,620	14,276,801
<b>Margin Analysis</b>																					
Total Gross Margin (Non-GAAP)	74.3%	75.5%	76.1%	77.3%	78.0%	76.5%	76.4%	76.6%	76.9%	76.5%	76.4%	76.7%	76.9%	76.5%	76.5%	76.7%	73.6%	75.9%	76.9%	76.6%	76.6%
R&D	16.1%	16.3%	16.4%	15.1%	15.2%	15.5%	16.1%	15.6%	15.4%	15.4%	15.4%	14.7%	14.8%	14.9%	15.0%	14.6%	16.8%	15.9%	15.6%	15.2%	14.8%
S&M	33.2%	31.9%	31.8%	29.4%	30.4%	31.0%	31.2%	30.0%	30.0%	30.0%	30.2%	28.9%	29.2%	29.0%	29.2%	27.6%	32.8%	31.5%	30.6%	29.8%	28.7%
G&A	4.4%	4.5%	4.3%	4.4%	4.2%	4.3%	4.4%	4.2%	4.2%	4.2%	4.3%	4.0%	4.1%	4.1%	4.2%	4.1%	5.0%	4.4%	4.3%	4.2%	4.1%
Total Operating Expenses (Non-GAAP)	53.7%	52.7%	52.5%	48.9%	49.9%	50.8%	51.6%	49.7%	49.6%	49.7%	49.9%	47.6%	48.1%	48.1%	48.4%	46.3%	54.6%	51.8%	50.5%	49.1%	47.7%
<b>Operating Margin (Non-GAAP)</b>	<b>20.6%</b>	<b>22.8%</b>	<b>23.6%</b>	<b>28.4%</b>	<b>28.2%</b>	<b>25.7%</b>	<b>24.8%</b>	<b>26.9%</b>	<b>27.2%</b>	<b>26.7%</b>	<b>26.5%</b>	<b>29.0%</b>	<b>28.8%</b>	<b>28.4%</b>	<b>28.0%</b>	<b>30.4%</b>	<b>19.0%</b>	<b>24.1%</b>	<b>26.4%</b>	<b>27.4%</b>	<b>28.9%</b>
Non-GAAP Tax Rate	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%
Net Income (Non-GAAP)	17.0%	20.0%	20.9%	24.7%	24.9%	22.4%	21.7%	23.1%	23.3%	22.9%	22.7%	24.3%	24.4%	24.0%	23.7%	25.2%	14.6%	20.9%	23.0%	23.3%	24.4%
<b>YoY % Growth</b>																					
Product	11.7%	14.6%	10.4%	24.3%	3.4%	2.7%	1.8%	0.7%	3.4%	4.6%	3.5%	3.8%	2.3%	2.3%	2.1%	1.7%	21.7%	15.8%	2.0%	3.8%	2.0%
Services	29.6%	29.1%	28.7%	26.6%	24.6%	23.5%	23.2%	21.4%	21.2%	21.2%	21.6%	21.4%	20.8%	20.4%	20.4%	20.1%	32.0%	28.4%	23.6%	21.4%	20.4%
Total Revenues	25.3%	25.7%	24.1%	26.0%	20.1%	19.0%	18.4%	17.3%	18.1%	18.1%	18.1%	17.5%	17.9%	17.4%	17.3%	16.5%	29.3%	25.3%	18.6%	17.9%	17.2%
Total Opex (Non-GAAP)	19.2%	19.1%	19.3%	17.6%	11.6%	14.8%	16.4%	19.2%	17.6%	15.5%	14.1%	12.6%	14.3%	13.5%	13.9%	13.2%	25.3%	18.8%	15.6%	14.8%	13.7%
Operating Income (Non-GAAP)	43.9%	55.3%	60.8%	71.4%	64.2%	34.3%	24.3%	11.5%	14.2%	23.0%	26.1%	26.6%	24.4%	24.8%	24.1%	21.9%	30.0%	59.2%	30.0%	22.6%	23.7%
EPS (non-GAAP)	52.1%	80.7%	85.0%	80.8%	66.1%	23.7%	16.7%	6.7%	8.2%	18.4%	21.2%	21.0%	21.0%	20.6%	19.9%	18.6%	23.2%	76.1%	24.0%	17.3%	19.9%
<b>QoQ % Growth</b>																					
Product	-19.1%	6.9%	10.0%	30.7%	-32.8%	6.3%	9.0%	29.3%	-31.0%	7.5%	7.8%	29.7%	-32.0%	7.5%	7.7%	29.1%					
Services	8.0%	5.6%	2.3%	8.5%	6.3%	4.6%	2.1%	8.5%	4.8%	4.4%	2.5%	8.3%	4.2%	4.0%	2.6%	8.0%					
Total Revenues	0.8%	5.9%	4.0%	13.5%	-3.8%	4.9%	3.4%	12.5%	-3.2%	4.9%	3.4%	11.9%	-2.9%	4.5%	3.3%	11.1%					
Total OPEX (Non-GAAP)	3.3%	3.9%	3.6%	5.7%	-2.0%	6.9%	5.0%	8.3%	-3.3%	5.1%	3.7%	6.9%	-1.9%	4.4%	4.1%	6.2%					
Operating Income (Non-GAAP)	-0.2%	16.9%	7.9%	36.2%	-4.5%	-4.4%	-0.1%	22.2%	-2.1%	2.9%	2.5%	22.6%	-3.8%	3.3%	1.9%	20.4%					
EPS (non-GAAP)	4.4%	26.2%	5.4%	30.3%	-4.1%	-6.0%	-0.6%	19.2%	-2.8%	2.9%	1.7%	19.1%	-2.8%	2.5%	1.1%	17.8%					

Source: BofA Global Research estimates, company report

## Glossary

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- ARR = Annual Recurring Revenue
- ELA = Enterprise License Agreement
- FCF = Free Cash Flow
- NGS = Next-Generation Security
- SASE = Secure Access Service Edge
- SD-WAN = Software-Defined Wide Area Network

## Price objective basis & risk

### Palo Alto Networks (PANW)

Our price objective of \$390 is based on roughly 14x CY25E EV/Sales, which is above the high-end range of appliance companies, which trade at roughly 6-8x 2025E EV/Sales.

The migration to Software and Cloud warrants a higher valuation, in our view, with successful SaaS vendors trading at 12-16x forward revenues.

Downside risks to our PO are increased competition and execution-related challenges as the company transitions to the cloud and SASE models.

## Analyst Certification

I, Tal Liani, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

### US - Telecom and Data Networking Equipment Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
<b>BUY</b>				
	Akamai	AKAM	AKAM US	Madeline Brooks
	Amdocs	DOX	DOX US	Tal Liani
	Arista Networks	ANET	ANET US	Tal Liani
	Check Point Software Technologies	CHKP	CHKP US	Tal Liani
	Ciena	CIEN	CIEN US	Tal Liani
	CrowdStrike Holdings Inc.	CRWD	CRWD US	Tal Liani
	CyberArk	CYBR	CYBR US	Tal Liani
	Fastly	FSLY	FSLY US	Madeline Brooks
	Fortinet	FTNT	FTNT US	Tal Liani
	Gen Digital, Inc.	GEN	GEN US	Jonathan Eisenson
	InterDigital, Inc.	IDCC	IDCC US	Tal Liani
	Motorola Solutions	MSI	MSI US	Tomer Zilberman
	Qualcomm	QCOM	QCOM US	Tal Liani
	Zscaler	ZS	ZS US	Tal Liani
<b>NEUTRAL</b>				
	Cellebrite	CLBT	CLBT US	Tal Liani
	Cisco Systems	CSCO	CSCO US	Tal Liani
	Palo Alto Networks	PANW	PANW US	Tal Liani
	SentinelOne, Inc.	S	S US	Tal Liani
<b>UNDERPERFORM</b>				
	Cloudflare	NET	NET US	Madeline Brooks
	CommScope	COMM	COMM US	Tal Liani
	F5 Inc	FFIV	FFIV US	Tal Liani
	Okta Inc	OKTA	OKTA US	Madeline Brooks
	SecureWorks	SCWX	SCWX US	Tal Liani



## iQmethod<sup>SM</sup> Measures Definitions

### Business Performance

Return On Capital Employed

Return On Equity  
Operating Margin  
Earnings Growth  
Free Cash Flow

### Quality of Earnings

Cash Realization Ratio  
Asset Replacement Ratio  
Tax Rate  
Net Debt-To-Equity Ratio  
Interest Cover

### Valuation Toolkit

Price / Earnings Ratio  
Price / Book Value  
Dividend Yield  
Free Cash Flow Yield  
Enterprise Value / Sales

EV / EBITDA

### Numerator

$\text{NOPAT} = (\text{EBIT} + \text{Interest Income}) \times (1 - \text{Tax Rate}) + \text{Goodwill Amortization}$   
Net Income  
Operating Profit  
Expected 5 Year CAGR From Latest Actual  
Cash Flow From Operations – Total Capex

### Numerator

Cash Flow From Operations  
Capex  
Tax Charge  
Net Debt = Total Debt – Cash & Equivalents  
EBIT

### Numerator

Current Share Price  
Current Share Price  
Annualised Declared Cash Dividend  
Cash Flow From Operations – Total Capex  
 $\text{EV} = \text{Current Share Price} \times \text{Current Shares} + \text{Minority Equity} + \text{Net Debt} + \text{Other LT Liabilities}$   
Enterprise Value

### Denominator

Total Assets – Current Liabilities + ST Debt + Accumulated Goodwill  
Amortization  
Shareholders' Equity  
Sales  
N/A  
N/A

### Denominator

Net Income  
Depreciation  
Pre-Tax Income  
Total Equity  
Interest Expense

### Denominator

Diluted Earnings Per Share (Basis As Specified)  
Shareholders' Equity / Current Basic Shares  
Current Share Price  
Market Cap = Current Share Price × Current Basic Shares  
Sales

Basic EBIT + Depreciation + Amortization

iQmethod<sup>SM</sup> is the set of BofA Global Research standard measures that serve to maintain global consistency under three broad headings: Business Performance, Quality of Earnings, and validations. The key features of iQmethod are: A consistently structured, detailed, and transparent methodology. Guidelines to maximize the effectiveness of the comparative valuation process, and to identify some common pitfalls.

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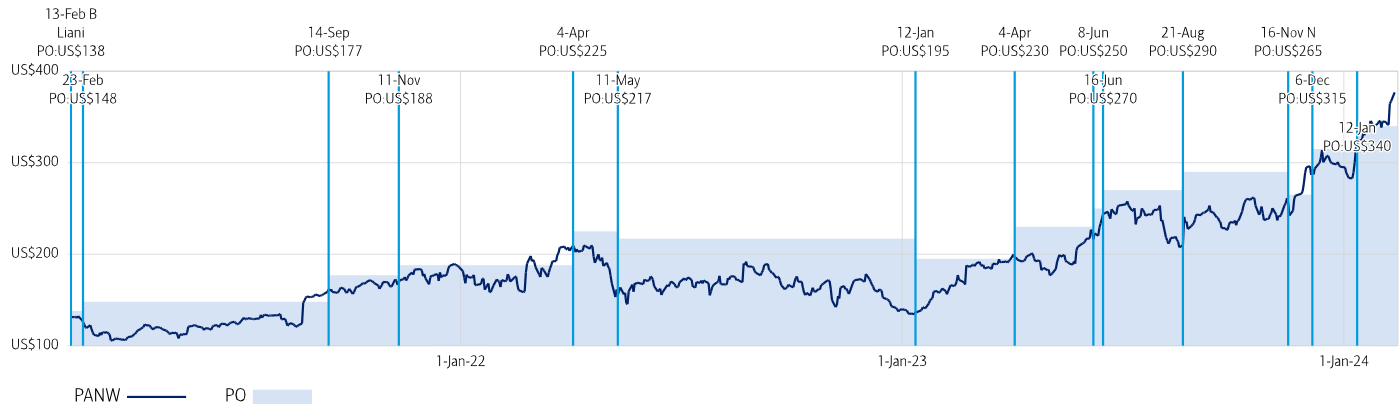
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B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of a date no more than one trading day prior to the date of the report.

### Equity Investment Rating Distribution: Telecommunications Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships <sup>R1</sup>	Count	Percent
Buy	57	51.82%	Buy	43	75.44%
Hold	27	24.55%	Hold	17	62.96%
Sell	26	23.64%	Sell	12	46.15%

### Equity Investment Rating Distribution: Global Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships <sup>R1</sup>	Count	Percent
Buy	1895	53.62%	Buy	1083	57.15%
Hold	832	23.54%	Hold	454	54.57%
Sell	807	22.84%	Sell	383	47.46%

<sup>R1</sup> Issuers that were investment banking clients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only stocks. A stock rated Neutral is included as a Hold, and a stock rated Underperform is included as a Sell.

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster <sup>R2</sup>
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

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