

Q2 2024 Cyber Security Update

Cybersecurity may seem like it has reached a saturation threshold, where market participants are broadly aware of the ongoing risks of new, more sophisticated cyberattacks, and the corresponding need for attack targets - corporations, governments, and individuals alike - to spend adequately to secure themselves. Yet, with a total addressable market (per McKinsey) of ~\$1.5-2T in terms of global cybersecurity spending, we are seeing the industry's penetration rate at best around 10% based on ~\$160-170B of global spend in 2023. This presents a massive runway for continued growth for the industry, which has already been recording very impressive and consistent growth rates of around 10% per year for several years running.

The Nasdaq ISE Cybersecurity Select™ Index (HXRXL™) has modestly underperformed the broader market for much of 2024, largely due to near-term headwinds from longer sales cycles and increased IT budget scrutiny. Cybersecurity companies have been transitioning to an environment where there is increased demand for “platformization” and a shift towards the cloud. With this transition comes a degree of uncertainty, which has likely weighed on investors. Investor concerns are likely to be allayed when uncertainty abates, and drivers of cybersecurity including generative AI are factored in. Thus far this year, investor sentiment towards artificial intelligence continues to be elevated relative to other areas of technology. When sentiment towards AI cools, other areas of the market that have been overlooked or been under pressure may begin to look attractive, including cybersecurity. At the same time, as its use proliferates, AI itself is seen as a potential major new growth driver for cybersecurity.

Today's threat landscape encompasses more attack surfaces than ever before. Additionally, generative AI has armored attackers with a new tool, making attacks harder to detect and defend against. Companies have gone back to the drawing board to bring to the market new AI-powered tools. These tools are still in the early stages of adoption, and have a long runway for growth. Demand for cybersecurity solutions tailored for a multi-cloud environment also remains quite high. With attacks continuing to proliferate, companies are likely to see strong demand for cybersecurity solutions for years to come.

In the near-term, companies' cybersecurity practices are likely to be tested by the rise of running AI models on individual devices, like an iPhone or Windows laptop. With sensitive data residing on individual devices, it is likely to spur demand for cybersecurity solutions tailored for AI-powered devices.

There has also been a noticeable uptick in government attention to the issue through new regulation from agencies like the SEC around cybersecurity-related disclosures by publicly traded firms, providing an added tailwind over the coming decade-plus.

All these factors contribute to Nasdaq's assessment of cybersecurity as a unique area of thematic tech that is much more of a defensive play for investors, given the stability of its growth trajectory, the demand push by governments, the unstoppable rise in cyberthreats, and the consistent ranking by corporate CISOs of Security Software as the highest-priority area of spending in their budgets, and the one that is least likely to get cut under any circumstances. This defensive nature for the sector is

borne out both by its measurably lower volatility compared to broad benchmarks like the Nasdaq-100® and other thematic/tech areas like Cloud & Semis, as well as by how well the cyber M&A market has held up over the last 2-3 years, with nearly 1 out of every 5 of HXRXL's parent index (ISE Cyber Security UCITS™) constituents getting acquired at average premiums of 40%.

As highlighted in our comprehensive investment case on cybersecurity, the industry continues to see steady improvements in its profit margins and quicker paths to profitability for newer entrants post-IPO. In 2023, approximately 70%-90% of the index weight tracked by the index saw free cash flow, gross margins, net margins, and operating margins grow. More than 50% of the index weight saw revenues grow and close to 45% of the index weight saw earnings grow. The vast majority of our index's constituents have now reached profitability, remain cash flow positive, and are positioned for continued improvement in growth and margins¹.

Cyber Security News/Insight

- Revenue in the global cybersecurity market is expected to reach \$185.7 billion in 2024, with an annual growth rate of 11.0%¹. The security services segment is expected to contribute \$97.3 billion and cyber solutions is expected to contribute the rest.² During the period 2024-2029, revenue is expected to show an annual growth rate of 7.9%, resulting in a total market of \$271.9 billion by 2029³. This growth is expected to be led by the cyber solutions segment with an estimated CAGR of 10.9% and a resultant market size of \$148.3 billion⁴ by 2029, followed by the security services segment at a lower rate of 4.9% and a resultant market size of \$123.6 billion by 2029⁵. The largest market for cybersecurity is the U.S. with a market size of \$81.4 billion in 2024. It is expected to grow at a CAGR of 9.4% during the period 2024-2029 to a market size of \$116.2 billion by 2029.⁶
- According to Statista, cybercrimes are expected to cost about \$9.2 trillion in 2024 with the cost expected to grow to \$13.8 trillion in 2028.⁷ Based on a new report from the International Monetary Fund (IMF), global financial stability is threatened by the increasing frequency and sophistication of cyberattacks.⁸
- In April, the U.S. Cybersecurity and Infrastructure Security Agency (CISA) publicly issued Emergency Directive 24-02 in response to a recent campaign by Russian state-sponsored cyber actor Midnight Blizzard targeting Microsoft corporate email accounts and potentially accessing correspondence with Federal Civilian Executive Branch (FCEB) agencies.⁹

Cybersecurity – Notable Ransomware Attacks and Breaches in Q2 2024

- On June 19, there were back-back cybersecurity attacks on CDK Global, a company that provides software for auto dealerships across the U.S. Nearly 15,000 car sellers that depend on CDK's dealer management software were affected. The company was forced to stop access to its core product, known as the dealer management system. Hackers demanded tens of millions of dollars in ransom. CDK issued a notice to customers that outside parties were reaching out to customers, while not naming the entity behind the intrusion.
- On May 9, Dell Technologies started informing millions of customers that data including full names and physical addresses – in addition to order service tags, item description, dates of orders and customer warranty information – was stolen during a security incident.¹⁰

¹ https://indexes.nasdaqomx.com/docs/HXRXL_Research.pdf

- On March 30, AT&T (NYSE: T) disclosed that the personal data (including social security numbers) of approximately 73 million current and former customers were exposed on the dark web. The company revealed the data set appears to be from 2019 or earlier, impacting approximately 7.6 million current AT&T account holders and approximately 65.4 million former account holders. AT&T is yet to determine if the source of data was AT&T or one of its vendors.¹¹

New Products

- In June 2024, Darktrace (NASDAQ: DARK) launched its new service offering, Darktrace Managed Detection & Response (MDR), which combines its detection and response capabilities with expertise of its global analyst team.¹²
- In May 2024, CrowdStrike Holdings (NASDAQ: CRWD) announced new CrowdStrike Falcon Next-Gen SIEM innovations, which modernize SOC operations with a single, unified platform to deliver full visibility and protection across all workloads.¹³
- In May 2024, Palo Alto Networks (NASDAQ: PANW) introduced new security solutions infused with Precision AI to help enterprises tackle AI-generated attacks and effectively secure AI-by-design.¹⁴

Cybersecurity – M&A and IPO Activity in Q2 2024

Inside HXRXL Index Activity:

- On June 10, Fortinet (NASDAQ: FTNT) announced plans to acquire Lacework, a late-stage cloud security startup. Fortinet said the plan is to integrate Lacework's CNAPP product into the Fortinet Unified SASE offering.¹⁵
- On May 7, cloud and security giant Akamai (NASDAQ: AKAM) announced plans to acquire U.S.-based application programming interface (API) protection company Noname Security for \$450 million. The deal is expected to close in the second quarter of 2024 and Akamai expects the transaction to deliver roughly \$20 million in revenue for the fiscal year 2024.¹⁶
- On April 26, PE firm Thoma Bravo agreed to acquire UK-based cybersecurity firm Darktrace (NASDAQ: DARK) for ~\$5.32 billion in cash, representing a 44% premium to the volume-weighted average price per share for the three-month period ended April 25, 2024. The acquisition represents an EV / Revenue multiple of 8.1 times, and EV / Adjusted EBITDA multiple of 34.2 times.¹⁷

Top 3 Contributors to HXRXL Index Performance in Q2 2024

Broadcom^{18, 19, 20}

- Stock price was up 21.1% from March 28, 2024 - June 28, 2024.
- Broadcom's performance was driven by strong results across its growing AI product portfolio and legacy VMware businesses with strong cybersecurity exposure.
- Raised FY 2024 guidance for consolidated revenue to \$51 bn and adjusted EBITDA to 61% of revenue.

CrowdStrike^{21, 22}

- Stock price was up 19.5% from March 28, 2024 - June 28, 2024.
- CrowdStrike's stock rose due to a strong start to their fiscal year 2025 and strong guidance. Additionally, it is largely viewed as a GenAI beneficiary.
- Subscription revenue was \$872 mn and was up 34% y/y while total revenue grew 33% to \$921 mn. Non-GAAP subscription gross margin was >80%.
- Guided FCF margin of 31%-33% of revenue for FY 2025 and non-GAAP operating margin of 28%-32%.

Palo Alto Networks²³

- Stock price was up 19.3% from March 28, 2024 - June 28, 2024.
- Palo Alto's stock rose due to strong quarterly results and acceleration in bookings growth. The company's ARR (annualized recurring revenue) came in ahead of consensus. Operating margins expanded to 25.6%, ahead of Street's 25% consensus estimate. FCF also beat Street's estimates.
- Revenue grew 15% year-over-year and beat high-end of guidance, while ARR and Bookings also beat consensus.
- Over the last three years, PANW generated a FCF CAGR of greater than 25%.
- Additionally, long-term operating margins have been revised upward to 28%-29% in FY 2026 and low 30%-range long-term.

Bottom 3 Contributors in Q2 2024

Fastly^{34,35}

- Stock price was down 43.2% from March 28, 2024 - June 28, 2024. Stock came under pressure due to disappointing Q2 revenue guidance of 6%-9% growth and annual guidance of 12%, driven by challenges in the short-term environment.
- Revenue came in at \$133.5 mn for Q1 2024, at the mid-point of guidance range. Operating loss narrowed to \$9.7 mn from a loss of \$14.1 mn in Q1 2023. Adjusted EBITDA was +\$3.7 mn and cash flow from operations was +\$11.1 mn.
- Decline in revenue from a few of its largest customers resulted in guidance coming below expectations.
- Q2 gross margin is expected to decrease approximately 130 basis points compared to Q1, plus or minus 50 basis points.

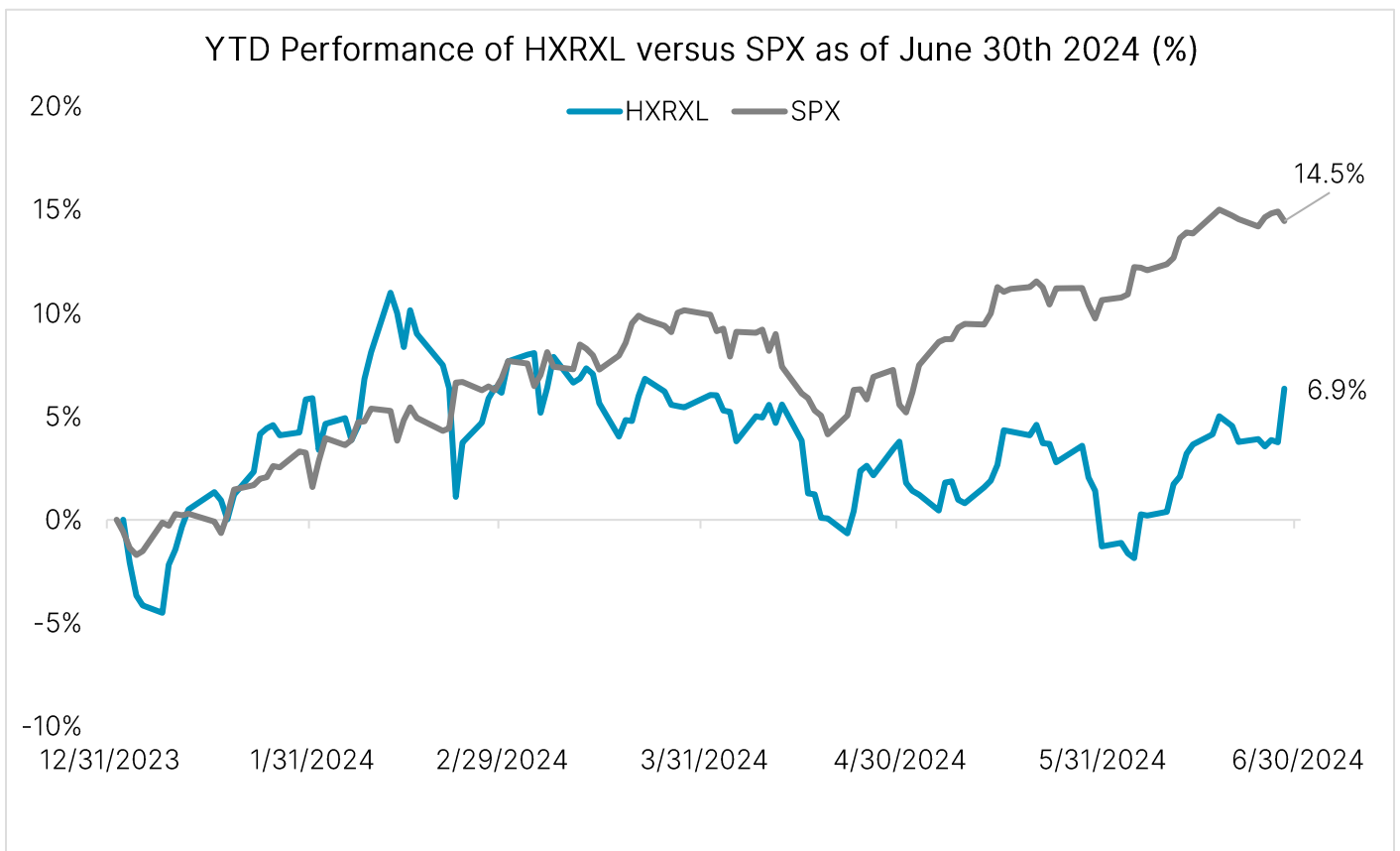
Trend Micro³⁶

- Stock price was down 19.8% (in USD terms) from March 28, 2024 - June 28, 2024.
- Trend Micro's stock came under pressure due to headwinds from heightened competition and sluggish sales growth in the US. Additionally, certain businesses came under pressure including the IT infrastructure business in Japan, cloud operations in United States, and IT infrastructure security in Europe.

Cloudflare³⁷

- Stock price was down 14.5% from March 28, 2024 - June 28, 2024.
- Cloudflare’s stock came under pressure as its revenue outlook was softer than expected due to mixed macroeconomic data and heightened geopolitical uncertainty. It has also faced headwinds from scaled back IT spending. Additionally, it reported a wider than expected operating loss.
- Additionally, its second quarter revenue and adjusted EPS revenue came in below estimates. For full year 2024, revenue is expected to grow 6%-8% year-over-year and adjusted EPS is expected to rise 7% to 11%.

Performance of HXRXL vs. S&P 500 (SPX)



Source: Bloomberg

As seen in the chart above, the HXRXL Index generated YTD price returns of 6.9%, as of June 30th 2024. It has underperformed the broader market, especially since March; the S&P 500 has generated YTD price returns of 14.5%. In Q2 2024, the HXRXL Index generated price returns of 0.8%, underperforming the S&P 500 by ~3 percentage points.

Sources: Nasdaq Global Indexes, Consumer Technology Association, Statista, McKinsey, CyberEdge, CISA, Neustar International Security Council, AlphaWise, Morgan Stanley Research, Bloomberg, Factset

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- ¹ <https://www.statista.com/outlook/tmo/cybersecurity/worldwide>
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 - ⁴ <https://www.statista.com/outlook/tmo/cybersecurity/cyber-solutions/worldwide>
 - ⁵ <https://www.statista.com/outlook/tmo/cybersecurity/security-services/worldwide>
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 - ⁷ <https://www.statista.com/forecasts/1280009/cost-cybercrime-worldwide>
 - ⁸ <https://es.weforum.org/agenda/2024/06/la-estabilidad-financiera-mundial-en-peligro-debido-a-las-ciberamenazas-advierde-el-fmi-lo-que-hay-que-saber/>
 - ⁹ <https://www.cisa.gov/news-events/news/cisa-directs-federal-agencies-immediately-mitigate-significant-risk-russian-state-sponsored-cyber>
 - ¹⁰ <https://www.securityweek.com/dell-says-customer-names-addresses-stolen-in-database-breach/>
 - ¹¹ <https://www.securityweek.com/att-says-data-on-73-million-customers-leaked-on-dark-web/>
 - ¹² <https://darktrace.com/news/darktrace-launches-managed-detection-response-service-to-bolster-security-operations>
 - ¹³ <https://www.crowdstrike.com/press-releases/crowdstrike-delivers-falcon-next-gen-siem-innovations/>
 - ¹⁴ <https://investors.paloaltonetworks.com/news-releases/news-release-details/palo-alto-networks-launches-new-security-solutions-infused>
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 - ¹⁹ <https://investors.broadcom.com/news-releases/news-release-details/broadcom-inc-announces-second-quarter-fiscal-year-2024-financial>
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 - ²³ <https://investors.paloaltonetworks.com/static-files/1c75f5af-1aaa-4957-911c-4541e5614700>
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 - ³⁵ https://investors.fastly.com/files/doc_earnings/2024/q1/transcript/Fastly-Inc-FSLY-US-Q1-2024-Earnings-Call-1-May-2024-4_30-PM-ET.pdf
 - ³⁶ https://www.trendmicro.com/en_us/about/investor-relations.html
 - ³⁷ <https://d18rn0p25nwr6d.cloudfront.net/CIK-0001477333/c0c00115-2a66-4fa9-9d54-fe350be3bc4a.pdf>