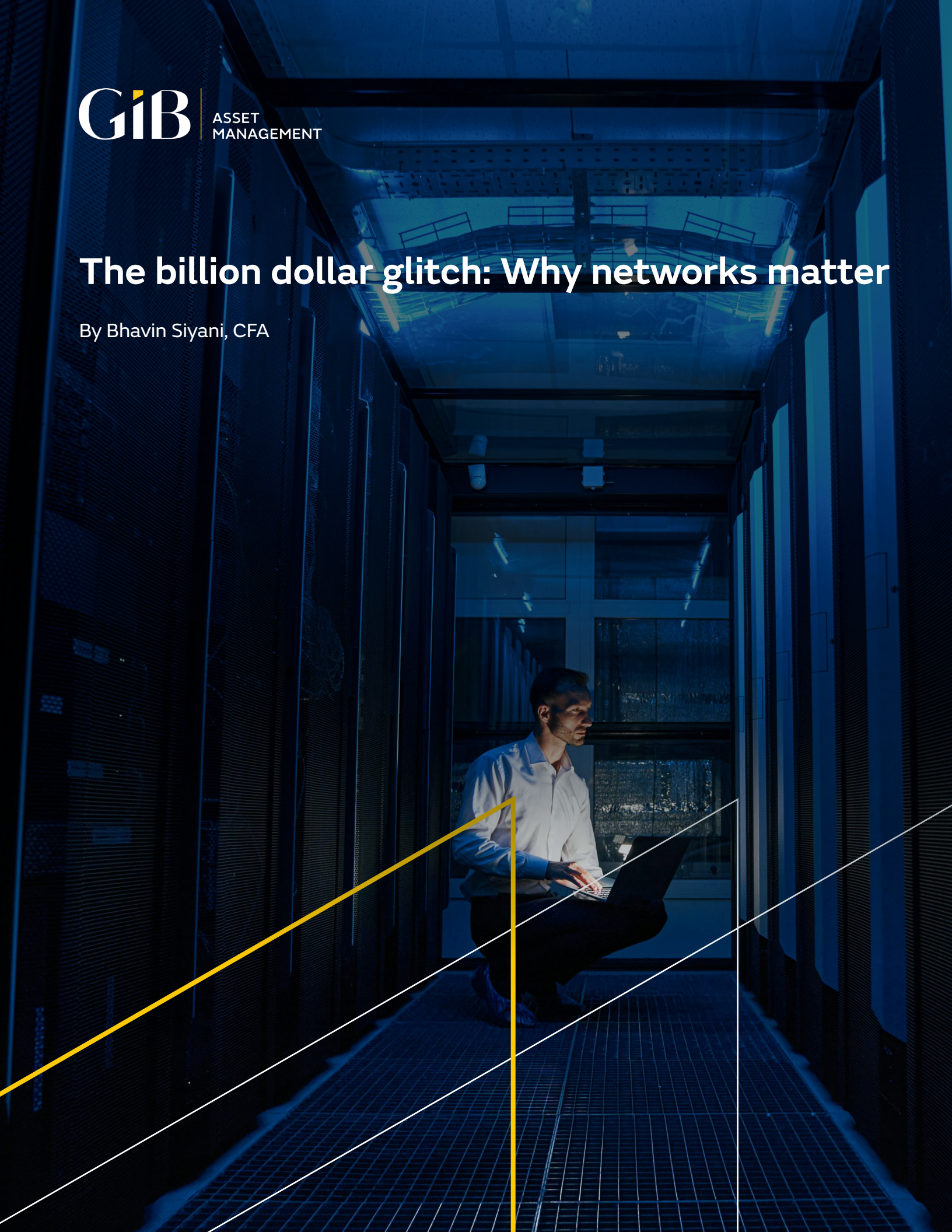


# The billion dollar glitch: Why networks matter

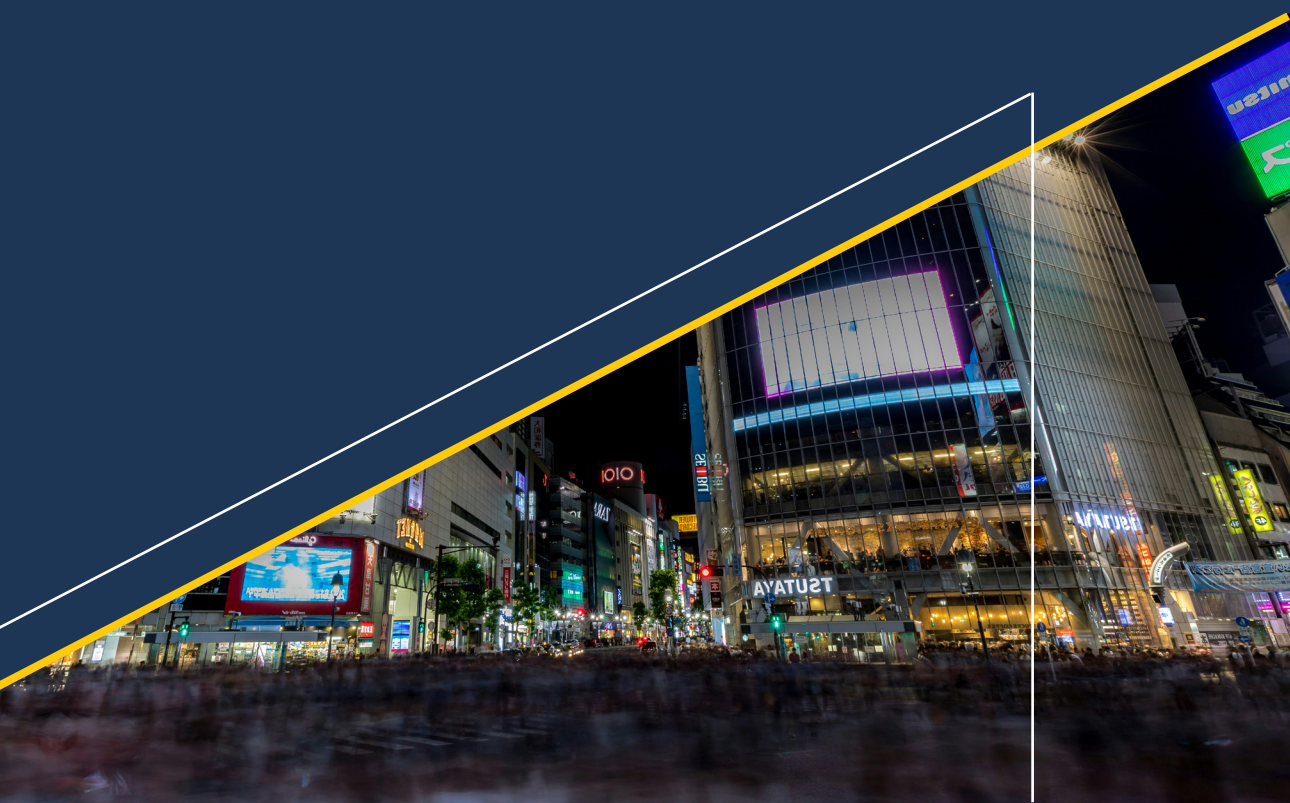
By Bhavin Siyani, CFA



## The billion dollar glitch: Why networks matter

### Executive Summary

- ▶ In an increasingly connected and digitised world, we believe many of the core services that allow society to function increasingly depend on the resiliency and speed of our networks.
- ▶ We anticipate corporates of all sizes will be rethinking their infrastructure spend long term and accelerating their short term decisions given recent network outages.
- ▶ With a 40% increase in the data that is created annually, and as we move more services to the cloud, it must be done in the most efficient, economical, and sustainable way. <sup>1</sup>
- ▶ Shaped by **SDG Goal 9** (industry, innovation and infrastructure), our focus on the **Efficiency** theme and **Frontier Technology** sub-theme led us to invest in **Arista Networks (ANET US)**, an industry-leader, providing a transformational and resilient technology to help companies maintain and operate their network.



It has been one month since countless people woke to the dreaded 'blue screen of death' on their computer screens. The global IT outage, which wreaked havoc across the globe, was the result of a faulty software update from cybersecurity firm CrowdStrike that infiltrated millions of PCs worldwide.<sup>2</sup> What at first appeared to be an innocuous software error, quickly spiralled into chaos, causing severe delays to emergency services and the crashing of international banking and payment systems.<sup>3</sup>

Whilst disruptive, these outages have prompted a much-needed discussion on the brittleness of global technology infrastructure and the software that operates our most critical services.

## The challenge and solution

Our networks are an important cog in the wheel, that all too often get overlooked. Networking infrastructure is mission critical and can create a heightened risk to businesses if left unchecked. Whilst on the surface, our digital networks appear robust, we believe cracks are emerging. Last months' events were a stark reminder of network issues and outages that have caused disruptions in the last few years. In 2022 for instance, a massive network failure at Rogers, a Canadian telecoms giant, forced more than ten million customers (over a quarter of Canada's population) off their internet, impacting critical functions such as banking transactions, government services, and emergency response capabilities.<sup>4</sup>

As we move more services to the cloud, handle more data online, and bring increased connectivity to the world, we must do it in the most efficient, economical, and sustainable way. With a 40% increase in the data that is created annually, this is a challenge that our GIB AM Sustainable World team have been investigating.<sup>1</sup> Our process seeks to combine deep thematic work to identify where a change is happening (which ultimately helps us to identify the dollar spend shift), as well as uncover unique

solution providers that can generate lasting profits from solving the world's greatest challenges.

Shaped by **SDG Goal 9** (industry, innovation and infrastructure), our focus on the **Efficiency** theme and **Frontier Technology** sub-theme led us to invest in **Arista Networks (ANET US)**, the supplier of low-latency, reliable and resilient networking hardware and software on a global scale. Arista has devoted years to developing high-quality software and a unified platform that empowers customers to seamlessly monitor and manage their networks.<sup>5</sup>

## What sets Arista apart?

Arista operates in the rapidly expanding and mission-critical field of data center networking, which is projected to grow through 2026, according to the 650 Group.<sup>6</sup> Notably, hyperscalers—large-scale data centers—are increasing their spending at a pace significantly faster than the broader market. Major cloud providers, for example, spend nearly three times more with Arista than Cisco, the largest competitor in this space, due to Arista's technological leadership.<sup>7</sup> As networks undergo a significant technological transition, this spending and market share is expected to rise, with the AI Networking market projected to reach nearly \$20 billion by 2025.<sup>8</sup>

Whilst exposure is the first step, execution is just as important. As recent history has showed us, customer pain points are not just speed but also reliability. Our IT infrastructure is no longer a centralised but instead distributed over thousands of servers globally. Whilst this allows for a seamless experience, it adds complexity. However, Arista's focus on quality is allowing it to win, with 90% fewer faults than their peers (perhaps in part, due to the 230,000 tests per day they conduct to stay ahead).<sup>9</sup> This has meant that Arista has been able to grow its market share from low single-digits to nearly 30% over the past 10 years.<sup>7</sup>

<sup>1</sup> Michael Shirer, 2024 (Worldwide spending on public cloud services)

<sup>2</sup> Reuters, 2024 (<https://www.reuters.com/technology/microsoft-says-about-85-million-its-devices-affected-by-crowdstrike-related-2024-07-20/>)

<sup>3</sup> Atkinson, Emily, 2024 (<https://www.bbc.co.uk/news/live/cnk4jdwp49et>)

<sup>4</sup> BBC News, 2022 (<https://www.bbc.co.uk/news/world-us-canada-62174477>)

<sup>5</sup> Sriram, Akash, 2024. (<https://www.reuters.com/technology/arista-networks-forecasts-quarterly-revenue-above-estimates-ai-boom>)

<sup>6</sup> Arista Networks, 2024. (<https://www.arista.com/en/company/news/press-release/19493-arista-unveils-etherlink-ai-networking-platforms>)

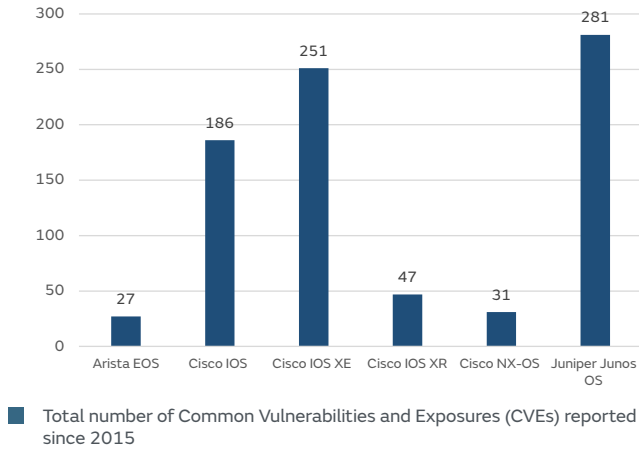
<sup>7</sup> Crehan Research Data Center Switch Market Share Report 4Q, 2023.

<sup>8</sup> Goldman Sachs, 2023. (<https://www.goldmansachs.com/insights/articles/ai-investment-forecast-to-approach-200-billion-globally-by-2025>)

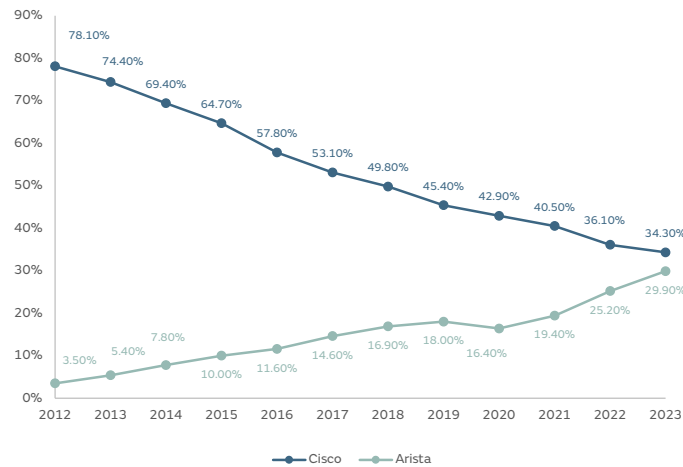
<sup>9</sup> Ed Amoroso, Katie Taylor, 2021. "<https://www.arista.com/assets/data/pdf/Whitepapers>)



**Chart 1<sup>10</sup>: Arista has the lowest software vulnerabilities vs. peers**

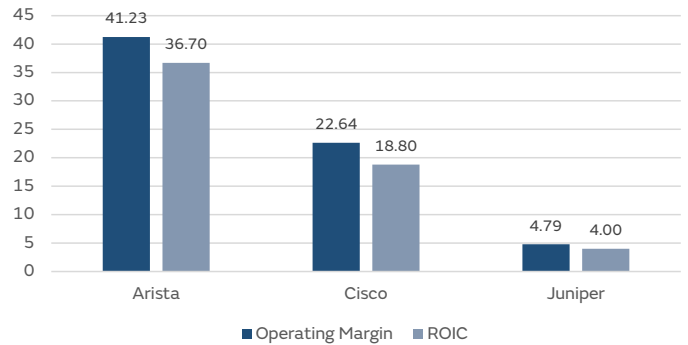


**Chart 2<sup>11</sup>: Share in Dollars**



Quality is a competitive advantage and Arista materialises this advantage with superior margins, unit economics and client retention. Whilst many of these processes can be imitated by competitors, it is the cultural focus on quality that solidifies this advantage. In the words of the founder and current CTO Ken Duda, **“business success comes after customer success”**, and this is implemented in many ways.<sup>12</sup> Whether through incentives for sales personal, which prioritises quality versus timing of sales, to making engineers responsible for developing tests to monitor their code.

**Chart 3<sup>13</sup>: A comparison of operating margin and ROIC (%)**



Operating in a large and fast growing market, with a product set that is differentiated through its quality and customer value proposition, places Arista in a strong position to generate good returns, whilst also combatting customer pain points.

## Conclusion

Our process draws on deep thematic analysis to find companies, such as Arista, who we believe will provide long-term solutions to our global challenges and create value for our end investors:

- **Deep thematic work:** we identify areas where significant change is occurring and where future money spending will shift. This involves extensive research and analysis to identify emerging trends that are poised to drive growth.
- **Sustainable investing:** Beyond what many call sustainability, we consider this approach good investing. We firstly focus on understanding the interplay of different stakeholders, the way they treat their employees, suppliers and customers, and we then couple that with competitive dynamics, unit economics and customer value proposition.

The ultimate goal of our Sustainable World Strategy is to find unique companies that can capitalise on thematic tailwinds and generate positive impacts. These companies not only address significant challenges, but also offer compelling solutions that create value for investors and society alike.

<sup>10</sup> BNP Paribas Exane estimates 2024

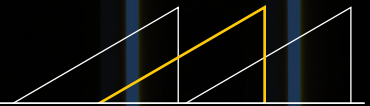
<sup>11</sup> Crehan Research Data Center Switch Market Share Report Q4 2023

<sup>12</sup> Tech Field Day, 2024. ([https://www.youtube.com/watch?v=Zpj7efXyKYw&list=PLinuRwpsHaf-EQqY3\\_JRbeuETzKrx42I&index=15](https://www.youtube.com/watch?v=Zpj7efXyKYw&list=PLinuRwpsHaf-EQqY3_JRbeuETzKrx42I&index=15))

<sup>13</sup> Bloomberg & GIB AM Analysis 2024

## References

- Amoroso, Ed. Taylor, Katie. 2021. "Market outlook and industry highlights". Arista. Accessed 14th August 2-24. <https://www.arista.com/assets/data/pdf/Whitepapers/TAG-Cyber-Annual-Market-and-Industry-Insights-for-2021.pdf>
- Arista Networks. 2024. "Arista Unveils Etherlink AI Networking Platforms". Accessed 14th August 2024. <https://www.arista.com/en/company/news/press-release/19493-arista-unveils-etherlink-ai-networking-platforms>
- Atkinson, Emily. 2024. BBC News. "Global IT chaos persists as CrowdStrike boss admits outage could take time to fix". Accessed 31st July 2024. <https://www.bbc.co.uk/news/live/cnk4jdp49et>
- Corfield, Gareth. 2024. The Telegraph. "Holidays in chaos after global IT meltdown". Accessed 31st July 2024. <https://www.telegraph.co.uk/business/2024/07/19/outage-tech-internet-broadband-banking-uk-australia-world/>
- Crehan Research Data Center, Switch Market Share Report 4Q, 2023. [4Q23 CREHAN Quarterly Market Shares – Data Center Ethernet Switch | Crehan Research, Inc.](https://www.crehan.com/4Q23-CREHAN-Quarterly-Market-Shares-Data-Center-Ethernet-Switch-Crehan-Research-Inc)
- Goldman Sachs, 2023. "AI investment forecast to approach \$200 billion globally by 2025" Accessed 14th August 2024. <https://www.goldmansachs.com/insights/articles/ai-investment-forecast-to-approach-200-billion-globally-by-2025>
- Haan, Katherine. 2024. Forbes. "24 Top AI Statistics And Trends in 2024". Accessed 31st July 2024. <https://www.forbes.com/advisor/business/ai-statistics/>
- RCR Wireless News, 2024, 'For data center networks, AI brings enormous potential and massive disruption', [For data center networks, AI brings enormous potential and massive disruption \(rcrwireless.com\)](https://www.rcrwireless.com/for-data-center-networks-ai-brings-enormous-potential-and-massive-disruption)
- Sriram, Akash. 2024. Reuters. "Arista Networks forecast quarterly revenue above estimates on AI boom". Accessed 31st July 2024. <https://www.reuters.com/technology/arista-networks-forecasts-quarterly-revenue-above-estimates-ai-boom-2024-07-30/>
- Shirer, Michael. 2024, 'Worldwide spending on public cloud services is forecast to double between 2024 and 2028, according to new IDC spending guide' [Worldwide Spending on Public Cloud Services is Forecast to Double Between 2024 and 2028, According to New IDC Spending Guide](https://www.idc.com/getdoc.jsp?containerId=prUS240701)
- Zimonjic, Peter. 2024. CBC. "Human error caused 2022 Rogers outage, system 'deficiencies' made it worse: report". Accessed 31st July 2024. <https://www.cbc.ca/news/politics/rogers-outage-human-error-system-deficiencies-1.7255641>
- Osion, Parmy. 2024. Bloomberg. "CrowdStrike's Global Outage Doesn't Have to Be a Recurring Nightmare". Accessed 31st July 2024. <https://www.bloomberg.com/opinion/articles/2024-07-19/crowdstrike-s-nightmare-it-microsoft-outage-shouldn-t-be-normal>
- Tech Field Day, 2024. "Bringing Wi-Fi Along Arista's Software Quality Journey with Ken Duda" <https://www.youtube.com/watch?v=Zpj7efXyKYw&list=PLinuRwpnsHaf-E0qY3JRbeuETzKnx42I&index=15>



This document is not for distribution to retail clients and is directed exclusively at GIB Asset Management's professional clients, institutional clients and/or Qualified Persons. This document has been prepared by Gulf International Bank (UK) Limited ("GIB (UK)"), trading as GIB Asset Management for discussion purposes only with the intended recipient. GIB UK is authorised by the Prudential Regulation Authority ("PRA") and regulated by the Financial Conduct Authority and PRA. GIB UK is registered as an Investment Adviser with the Securities and Exchange Commission in the United States. The document shows market commentary and does not constitute investment research. This document is provided for information purposes and is intended for your use only and does not constitute an invitation or offer to subscribe for or purchase any of the products or services mentioned. The information provided is not intended to provide a sufficient basis on which to make an investment decision and is not a personal recommendation.

The portfolio will exclude stocks with revenue derived from prohibited activities, e.g. alcohol production or controversial weapons. It will also exclude based on international standards, such as UN Global Compact or any environmental, social, and governance controversies, e.g. an oil spill or data privacy scandal of a company. Exclusions can be tailored to meet the needs of our clients. Observations and views of GIB UK may change at any time without notice. Information and opinions presented in this document have been obtained or derived from sources

believed by GIB UK to be reliable, but GIB UK makes no representation as to their accuracy or completeness. GIB UK accepts no liability for loss arising from the use of this document. Moreover, any investment or service to which this document may relate will not be made available by GIB UK to retail customers.

The price and value of investments mentioned and any income that might accrue could fall or rise or fluctuate. Past performance is not a guide to future performance. If an investment is denominated in a currency other than your base currency, changes in the rate of exchange may have an adverse effect on value, price or income. Nothing in any document constitutes investment, legal, accounting or tax advice, or a representation that any investment or strategy is suitable or appropriate to individual circumstances, or otherwise constitutes a personal recommendation to any specific investor unless clearly stated. The registered address of GIB UK is First Floor, One Curzon Street, W1J 5HD.

## Contact

[info@gibam.com](mailto:info@gibam.com)

T: +44 (0) 20 7259 3456

Follow us: 