TMT – Networking Equipment

# Equity Research Report
# ARISTA

Reimagining cloud networks for performance, scale and programmability

By Cascade Research

ARISTA

**January 2025**

Cascade
Research

**DISCLAIMER**

This report is for informational purposes only and does not constitute investment advice. The information provided is believed to be reliable but is not guaranteed. Past performance is not indicative of future results. Always consult with a financial professional before making any investment decisions.

# Company Overview



# ARISTA

| | |
|---|---|
| Headquarter | Santa Clara, CA |
| Founded | 1999 |
| CEO | Jayshree V Ullal |
| Employees | 4,023 |
| Sector | TMT |
| Price per share | $ 115.14 |
| Shares outstanding | 1,260M |
| Market capitalization | $ 141.1B |
| EV | $ 113.4B |
| Net Debt | $ 2727.8M |
| Gross margin | 61.95% |
| EBITDA margin | 40.13% |
| Net margin | 35.62% |
| FCF | $ 3178.1M |

Source: Bloomberg Terminal (Jan 2025)

# Business Model

**Customers**

- Cloud Service Provider
- Enterprises
- Telecommunication Companies

**Demands**
- Low-Latency Networking
- Cloud-Scale Networking
- Software-Driven Automation
- Integrated Security and Visibility
- Energy-Efficient Networking
- Seamless Interoperability

**Business cycle**

**Consultation and Assessment:** Arista collaborates with the customer to understand their networking needs, operational challenges, and future scalability requirements.

**Solution Design and Customization:** Tailored networking solutions are developed, integrating Arista's hardware, software, and automation tools to address the customer's unique demands.

**Ongoing Support and Optimization:** Continuous support, software updates, and performance tuning are provided to adapt to evolving customer needs and maintain operational efficiency.

**Implementation and Integration:** The solutions are deployed and seamlessly integrated into the customer's existing infrastructure, ensuring minimal disruption.

Source: Arista Company Website, Arista's 10-K, Arista annual report (Q3 2024)

## Core Business Model
Arista Networks' business model is centered on delivering high-performance, data-driven networking solutions tailored to large data centers, campuses, and enterprise environments. The company's offerings include industry-leading Ethernet switching and routing platforms, such as the R-series for high-speed AI workloads and the X-series for enterprise and campus networking. Leveraging merchant silicon and its Extensible Operating System (EOS), Arista provides customers with seamless integration, low latency, and superior scalability, meeting the evolving needs of modern IT infrastructure.

## Advanced Software Platform
Arista's proprietary software platforms, including EOS and CloudVision, form the backbone of its networking solutions. EOS, built on a modern publish-subscribe architecture, enables programmability and state-sharing across all network layers, supporting high-speed data transmission and robust network operations. CloudVision complements EOS by offering real-time telemetry, analytics, and network orchestration, reducing complexity and enhancing operational efficiency. Together, these platforms underpin Arista's innovations in AI networking, enabling features such as advanced packet spraying and congestion control, which are critical for managing distributed AI/ML workloads.

## Geographic Revenue Breakdown
Arista Networks' revenue distribution highlights its dominant presence in the United States, which remains its largest market. In 2023, hyperscalers such as Microsoft and Meta contributed significantly to this growth, collectively accounting for over 20% of total revenue. International markets, including Europe and Asia-Pacific, also demonstrated notable growth as Arista expanded its global footprint, driven by increased adoption of its cloud and enterprise networking solutions.

## Strategic Innovation & Market Leadership
Arista's strategic initiatives have propelled it to a leadership position in the networking industry. In 2023, the company maintained its status as a top provider of 100G and above Ethernet ports, while diversifying its portfolio to include cognitive campus solutions and zero-trust security frameworks. Partnerships with major cloud providers such as Microsoft and Meta contributed to robust revenue growth. Arista's commitment to innovation is further evidenced by its role as a founding member of the Ultra Ethernet Consortium, advancing Ethernet capabilities to meet the demands of next-generation AI and HPC environments.

## Innovation and Expansion
Innovation drives Arista's expansion into emerging markets and technologies. In 2023, the company introduced the 7130 Series for ultra-low latency switching in high-frequency trading (HFT) and expanded its AI networking capabilities with the 7800R3 series. Enhancements to its Zero Trust Networking Architecture addressed hybrid work security needs, while the Cognitive Campus portfolio, including Arista CUE, improved distributed network efficiency and reliability.
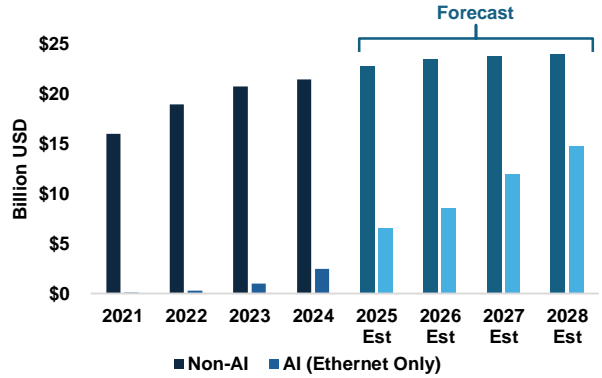
# Industry Analysis

**Exhibition 2 – Global Datasphere size:** Global datasphere is expected to double in zettabytes by 2026 relative to the end of 2022.
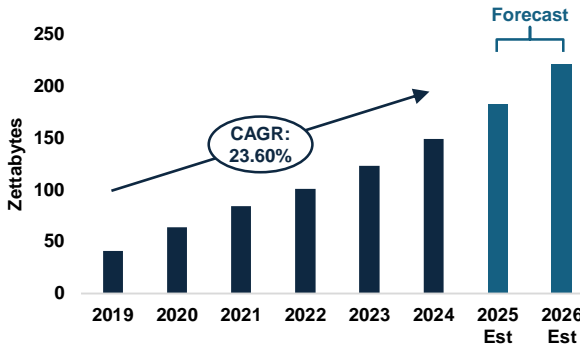


Source: AVANT by Avison Young, IDC Global DataSphere Forecast

**Exhibition 3 – Data Center Revenue**: Growing generative AI workloads and the use of high-capacity switches will grow market significantly.
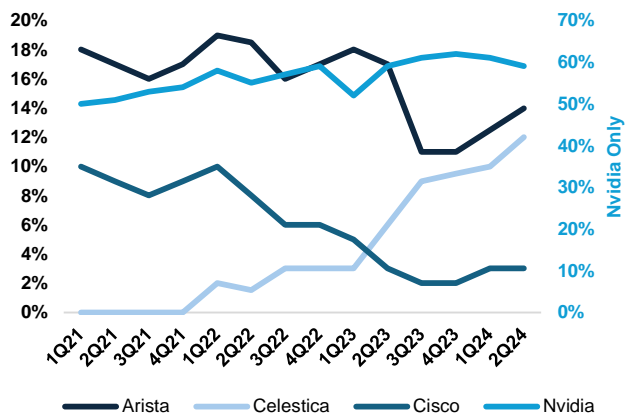


Source: 650 Group, Bloomberg Intelligence (Jan 2025)

## Global Datasphere Growth

As a leading manufacturer of high-speed Ethernet switches, the company is expected to benefit significantly from the major trend of speed upgrades in data centers. With the development of technologies such as 8K, 5G, IoT, big data, and AI, the amount of data has experienced explosive growth. According to IDC data, the global datasphere reached 123ZB in 2022, is expected to reach 149ZB in 2024, and is projected to reach 221ZB by 2026.

To cope with the rapidly growing data volumes, cloud vendors are continuously upgrading the transmission speeds of their data centres. With the development of generative AI, there are even higher requirements for low-latency and high-speed data transmission.

**Exhibition 4 – AI Networking Market Share**



Source: 650 Group, Bloomberg Intelligence (Jan 2025)

## The AI Networking Market and Strong Demands for Ethernet AI Networking Infrastructure
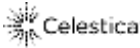
The AI networking market is experiencing rapid growth, driven by the increasing adoption of artificial intelligence across various industries. This growth is fuelled by the need for high-speed, low-latency networks that can support the demanding workloads of AI applications. Ethernet technology is emerging as the preferred choice for AI networks due to its faster data speeds, broader adoption, and larger vendor ecosystem compared to InfiniBand. The transition to Ethernet for AI networking is a significant trend, with cloud providers like Meta and Google leading the way. This shift is expected to create significant opportunities for companies like Arista, Cisco, and Celestica, which offer Ethernet-based solutions. Another key trend is the increasing demand for higher-capacity switching gear, as AI applications require ever-increasing bandwidth. This is driving the adoption of 400G and 800G optics, with 1.6T and 3.2T optics expected to ramp up quickly as they become available. Overall, the AI networking market is dynamic and evolving rapidly, with technological innovation and market accessibility playing crucial roles in its growth. The transition to Ethernet, the demand for higher-capacity switching gear, and the increasing adoption of AI across industries are key trends shaping the market's future.

## Market Share Overview

The competitive landscape of the AI networking market is in constant flux. Arista Networks has emerged as a frontrunner, capitalizing on the industry's shift towards Ethernet technology. Its strong relationship with major cloud providers like Meta and Microsoft, coupled with innovative Ethernet-based solutions such as the 7700R4 and 7800R4 router/switch, have enabled Arista to secure a significant market share, consistently hovering between 15-20% as depicted. However, Nvidia remains a formidable competitor, leveraging its strong position in the GPU market and its Spectrum-X Ethernet solutions to maintain a considerable foothold. Nvidia's strategic introduction of the Spectrum-X Ethernet platform signals a strong commitment to capturing a larger share of the AI networking market, moving beyond its traditional InfiniBand dominance, with its market share steadily increasing as illustrated. Cisco's Silicon One chip has allowed it to gain traction, while Celestica's established presence in cloud networks contributes to its market share, both experiencing fluctuations as shown in the chart.

# Competition Analysis

| Company Name | Arista | Cisco | NVIDIA | Celestica | Average |
|---|---|---|---|---|---|
| **Logo** | ARISTA | CISCO | NVIDIA. | Celestica | -- |
| **Market Cap.** IN $USD | 149.43B | 233.48B | 3672.43B | 11.47B | 1016.70B |
| **Revenue** IN $USD | 6.61B | 52.98B | 113.27B | 9.24B | 45.53B |
| **EBITDA** IN $USD | 2.85B | 13.592B | 73.07B | 0.70B | 22.55B |
| **EBITDA Margin** | 43.03% | 25.66% | 64.51% | 7.60% | 35.20% |
| **EV/EBITDA** | 49.90 | 18.25 | 49.89 | 17.12 | 33.79 |
| **R&D Costs** IN $USD | 0.92B | 8.36B | 11.67B | 0.07B | 5.26B |

Source: Bloomberg Terminal (TTM, Jan 2025)

## Financial Benchmarks

The competitive landscape for Arista Networks is increasingly dynamic, shaped by key players like Cisco, NVIDIA, and Celestica. Arista's market capitalization of $149.43 billion is substantial but trails behind Cisco's $233.48 billion and NVIDIA's $3.67 trillion. However, Celestica, with a market cap of $11.47 billion, has emerged and captured a significant 28% market share in AI backend networking solutions. This demonstrates Celestica's successful leveraging of its manufacturing expertise to become a major player in this critical segment. Arista's revenue of $6.61 billion is significantly lower than Cisco's $52.98 billion and NVIDIA's $113.27 billion, emphasizing the broader market reach and diversified portfolios of these larger competitors. While Celestica's $9.24 billion revenue is rooted in manufacturing services, its substantial share in AI networking solutions showcases the increasing importance of this segment to its overall business. Arista's EBITDA of $2.85 billion, with a robust EBITDA margin of 43.03%, demonstrates strong operational efficiency. Still, it is outpaced by Cisco's $13.59 billion and NVIDIA's $73.07 billion, both maintaining high EBITDA margins of 25.66% and 64.51%, respectively. Celestica's EBITDA margin stands at 7.6%, but its strong market share in AI backend solutions is expected to positively impact this metric moving forward.

## Growth Potential and Valuation

Arista's EV/EBITDA ratio of 49.90 is high, similar to NVIDIA's 49.89, indicating that investors are willing to pay a premium for its future growth prospects in the high-performance networking market. In contrast, Cisco's 18.25 suggests a more mature, stable growth trajectory. Celestica, with an EV/EBITDA of 17.12, is also positioned for growth, particularly with its 28% market share in the rapidly expanding AI backend solutions segment. This strong position indicates that the market sees significant future value in Celestica's focused strategy.

## Focused R&D Investments

Arista's R&D investment of $0.92 billion, while significant, is dwarfed by Cisco's $8.36 billion and NVIDIA's $11.67 billion, reflecting the different scales of operation. However, NVIDIA and Arista are considered AI-networking "bellwethers" poised for continued success in 2025. Celestica's R&D spending is much lower at $0.07 billion. However, its strategic focus on manufacturing and integrating AI networking solutions, coupled with its established relationships with hyperscale-cloud customers, has propelled it to a leading 28% market share in AI backend networks. The evolving market dynamics highlight the increasing competition and shifting positions of each player in the AI networking space.

# Financial Analysis – Revenue Development

Exhibition 6 – Rising Revenue: Arista's revenue growth shows stable gross margins and rising profitability, with net profit margin peaking in 2023.
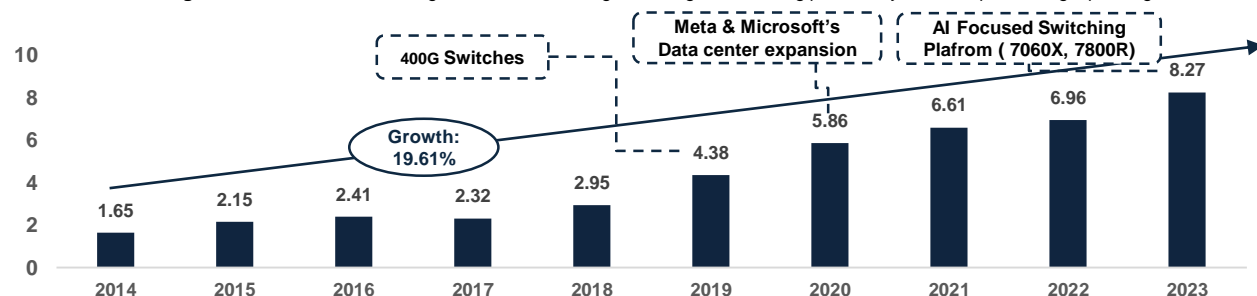


| Years | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|
| Gross margin | 64.1% | 64.0% | 63.8% | 61.1% | 62.0% |
| Operating Margin | 33.5% | 30.8% | 31.7% | 35.0% | 38.8% |
| Net Profit Margin | 32.4% | 27.7% | 24.9% | 27.9% | 35.6% |
| EBITDA Margin | 35.8% | 33.7% | 34.2% | 36.9% | 40.4% |

Source: Bloomberg Terminal (Jan 2025)

## Organic Growth Drivers

- Expansion of AI-driven Ethernet platforms and EOS-based solutions
- Strong traditional customer – Meta, Microsoft
- Rapidly growing global datasphere

## Artificial Growth Drivers

- Acquisitions including Mojo, Metamako, and Pluribus
- Stock-based compensations to retain talent
- Subscription-based revenue model

Source: Bloomberg Terminal (Jan 2025)

*Arista Networks' growth reflects its strategic positioning within the rapidly expanding cloud networking and AI-driven infrastructure markets. Revenue increased from $1.13 billion in 2014 to $5.86 billion in 2023, demonstrating Arista's ability to leverage both organic and artificial growth drivers to expand its market share in a highly competitive environment. This growth has been accompanied by robust margin performance, underscoring its operational efficiency.*

## Organic Growth Drivers

Arista's innovative Extensible Operating System (EOS) has been a bedrock of organic growth. EOS's programmability, scalability, and AI integration have enabled the company to maintain high gross margins, which averaged 63% from 2019 to 2023, even amidst increasing investments in R&D. The operating margin has also steadily improved, rising from 33.5% in 2019 to 38.8% in 2023, reflecting the scalability of its business model as revenue and cost optimization improved over time. The company's market expansion into campus networking and security products demonstrates its ability to diversify and grow beyond its core data center markets. Furthermore, Arista's strategic focus on generative AI has driven the introduction of advanced Ethernet switching platforms, ensuring customer retention and new client acquisition. International expansion has contributed significantly to organic growth, with efforts targeting high-potential markets in Europe and Asia. By tailoring products to meet local demands, Arista has diversified revenue streams while ensuring high net profit margins, which rose from 24.9% in 2021 to 35.6% in 2023.

## Artificial Growth Drivers

Arista has strategically leveraged acquisitions to strengthen its leading position in the industry. Key purchases, such as Awake Security for AI-driven network detection and Big Switch Networks for software-defined networking (SDN), have allowed Arista to address emerging demands in cloud security and software-based solutions. The buyouts enhanced Arista's ability to deliver subscription-based services through CloudVision, which has become a steady source of recurring revenue. The company's strong financial health has supported share buyback programs, improving earnings per share and reinforcing investor confidence. This financial discipline is evident in Arista's superior EBITDA margin, which climbed from 35.8% in 2019 to 40.4% in 2023, highlighting the company's ability to manage operating costs effectively while scaling.

# Financial Analysis – Ratio Analysis

**Exhibition 7 – Solid Liquidity:** Arista has strong liquidity, low debt reliance, and strategic investments, supporting long-term growth.

**Liquidity & Solvency Assessment**

| Years | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|
| Current Ratio | 5.81 | 4.99 | 4.34 | 4.29 | 4.39 |
| Quick Ratio | 5.41 | 4.37 | 3.75 | 3.29 | 3.38 |
| LT Debt/Capital | 0.03 | 0.02 | 0.01 | 0.01 | 0.01 |
| Total Liabilities/Total Assets | 0.31 | 0.30 | 0.31 | 0.28 | 0.27 |

**Debt Analysis**

| Years | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|
| Total Debt/Capital | 2.05% | 2.64% | 1.89% | 1.29% | 0.90% |
| EBITDA / Interest Exp. | 1618.63 | 2367.42 | 2861.93 | 3258.11 | 3684.16 |
| Total Debt/EBITDA | 0.06 | 0.04 | 0.03 | 0.02 | 0.02 |
| Net Debt/EBITDA | -0.63 | -0.34 | -0.19 | -0.19 | -0.51 |

**Asset Efficiency**

| Years | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|
| Total Asset Turnover | 1.05 | 1.24 | 1.15 | 1.03 | 0.83 |
| Fixed Asset Turnover | 34.5 | 53.5 | 46.0 | 46.9 | 52.5 |
| Accounts Receivable Turnover | 11.1 | 15.0 | 12.8 | 7.54 | 8.08 |
| Inventory Turnover | 7.00 | 4.65 | 3.62 | 1.92 | 1.46 |

Source: Bloomberg Terminal (Jan 2025)

## Liquidity Analysis

Arista Networks' liquidity ratios reflect its commitment to growth and operational efficiency. The current ratio has declined from 5.8 in 2019 to 4.4 in 2023, indicating increased reliance on current liabilities to fund operational activities. Similarly, the quick ratio fell from 5.4 to 3.4 during the same period. These reductions are from substantial investments in research and development (R&D) for advanced AI Ethernet platforms and expansion into cognitive adjacencies such as campus networking and security products. Despite this, liquidity remains solid due to robust cash flows and significant cash reserves of $1.94 billion in 2023. Going forward, these ratios are expected to stabilize, supported by strong revenue growth from generative AI products and international market penetration. The long-term debt-to-capital ratio remained low (1~3%), reflecting Arista's preference for equity and internal funding, and reached as low as 1% in 2023, showing minimal reliance on debt. The total liabilities-to-assets ratio decreased from 31% in 2019 to 27% in 2023, aligning with higher deferred revenues as subscription-based models gain traction.

## Debt Analysis

The EBITDA-to-interest expense ratio, a measure of interest coverage, increased from 1618.63 in 2019 to 3684.16 in 2023. Such extreme values represent Arista's conservative debt management (minimal debt amount leads to negligible interest payment) and capability to generate significant earnings to self-finance. The total debt-to-EBITDA ratio improved from 6% to 2%, and Net debt-to-EBITDA ratio improved from –0.63 to –0.51. Both show stronger cash flows which enabled Arista to self-finance and minimal external financing reliance.

## Asset Efficiency Analysis

The Total Asset Turnover ratio declined from 1.24 in 2020 to 0.83 in 2023, indicating that asset growth has outpaced revenue growth. This aligns with Arista's focus on long-term scalability and investments in AI-driven platforms (EOS). The Fixed Asset Turnover remained strong, improving from 34.5 in 2019 to 52.5 in 2023. This demonstrates an effective use of physical infrastructure to support revenue growth despite of significant capital expenditures. The Accounts Receivable Turnover dropped from 15.0 in 2020 to 8.08 in 2023, reflecting extended payment cycles due to a more diverse and international customer base. The Inventory Turnover declined from 7.00 in 2019 to 1.46 in 2023, suggesting stockpiled inventory to meet future demand. These ratios show Arista's scalability and resilience, balancing short-term efficiency pressures with long-term growth strategies.

# Financial Analysis – Cashflow Analysis

**Exhibit 8 – Liquidity Boost**: Arista's cash flow highlights strong operational growth, disciplined investments, and strategic capital returns, driving a significant cash increase in 2023.
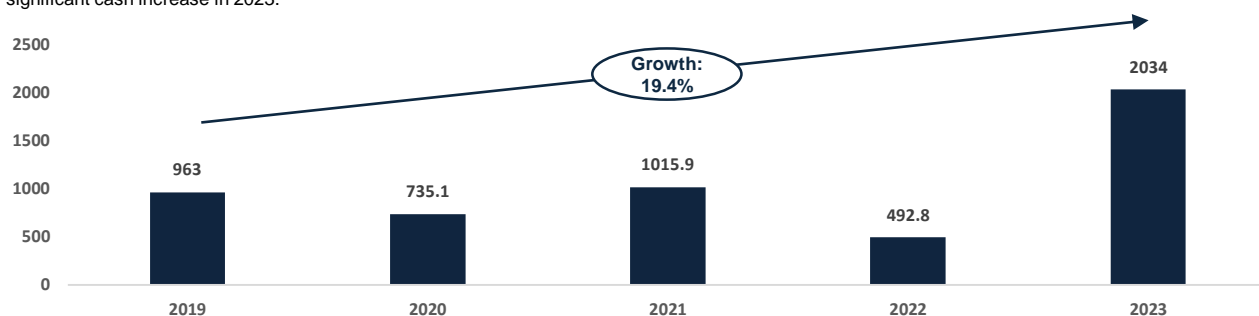


| Cash Flow | FY 2019 12/31/19 | FY 2020 12/31/20 | FY 2021 12/31/21 | FY 2022 12/31/22 | FY 2023 12/31/23 |
|---|---|---|---|---|---|
| Net Income | 859.9 | 634.6 | 840.9 | 1352.5 | 2087.3 |
| Depreciation & Amort., Total | 32.9 | 44.6 | 50.3 | 62.7 | 70.6 |
| Other Non-Cash Adj | 3.8 | 35.8 | 34.4 | (24.3) | 23.3 |
| Changes in Non-Cash Capital | 41.0 | (107.8) | 2.7 | (884.6) | (73.2) |
| **Cash from Ops.** | **963.0** | **735.1** | **1015.9** | **492.8** | **2034.0** |
| Capital Expenditure (Acq of Fixed & Intang) | (15.8) | (15.4) | (64.7) | (44.6) | (34.3) |
| Purchases of marketable securities | (2317.3) | (1418.9) | (2606.9) | (1934.2) | (2593.4) |
| **Cash from Investing** | **(284.1)** | **(608.8)** | **(925.6)** | **216.3** | **(687.5)** |
| Proceeds from issuance of common stock under equity plans | 64.2 | 35.2 | 67.3 | 48.4 | 62.1 |
| Tax withholding for employee share settlement | (16.5) | (32.7) | (16.5) | (32.7) | (33.6) |
| Repurchase of Common Stocks | (208.8) | (337.6) | (411.6) | (670.3) | (112.3) |
| Exchange rate changes effect | 0.4 | 2.0 | (1.8) | (3.6) | 0.7 |
| **Cash from Financing** | **(218.0)** | **(346.3)** | **(360.9)** | **(654.6)** | **(83.8)** |
| **Net Change in Cash** | **461.4** | **(218.1)** | **(272.4)** | **50.9** | **1263.5** |

Source: Bloomberg Terminal (Jan 2025) - Certain line items from the cash flow statement have been omitted.

**Positive Signal – Exceptional Cash Flow Growth**

Arista Networks has demonstrated substantial growth in its cash flow metrics from 2019 to 2023, reflecting the company's strong market presence and operational efficiency. Operating cash flow surged from $963.0 million in 2019 to $2,034.0 million in 2023, translating to a compound annual growth rate (CAGR) of 19.4%. This growth was primarily driven by a steady increase in net income, which rose from $859.9 million to $2,087.3 million over the same period. Arista's robust revenue growth, fueled by strong demand for its data-driven cloud networking solutions, underscores its ability to capture and expand market share effectively.

During this period, capital expenditures (CapEx) increased modestly at a slower pace, from $15.8 million in 2019 to $34.3 million in 2023. This indicates Arista's strategic reinvestment in its infrastructure and technological capabilities to support long-term growth, particularly in high-demand areas such as AI and cloud computing.

**Focus on Shareholder Value**

On the financing side, Arista has prioritized shareholder value through share buybacks and equity issuances. For instance, in 2023, the company repurchased $112.3 million worth of shares, reflecting the confidence in its financial health and future cash flow generation. Additionally, proceeds from the issuance of common stock under equity plans contributed $62.1 million, reflecting active participation in employee compensation programs.

Arista's disciplined approach to managing its capital structure, with no significant reliance on long-term debt, highlights its strong balance sheet and reliance on internally generated cash flows to fund operations and strategic initiatives.

**Prudent Investment Strategy**

Arista Networks' investing activities focus on a conservative portfolio of marketable securities totaling $4.25 billion as of September 30, 2024. It includes $1.51 billion in U.S. government notes, $1.97 billion in corporate bonds, $754 million in agency securities, and $25 million in commercial paper, all with short durations (up to two years) and high credit ratings. This approach ensures liquidity and stable returns to support the company's operational needs.

# Strategic Analysis

## Current Upside: Riding the Wave of Data Expansion and Cloud Adoption

Arista Networks is currently experiencing strong upside, fueled by the explosive growth of the datasphere and widespread cloud adoption. Beyond simply offering high-speed Ethernet switches, Arista possesses **a unique competitive advantage** rooted in its Extensible Operating System (EOS) and its cloud-native architectural approach. EOS, built on a standard Linux kernel, provides a level of programmability, customization, and automation that surpasses traditional, closed-network operating systems. This **software-centric approach** forms the foundation of Arista's economic moat in the form of switching cost for adopting non-Arista solutions. The network effects associated with EOS **create a powerful barrier to entry**: as more customers adopt Arista's platform, the ecosystem of developers, tools, and integrations around EOS grows, further enhancing its value and attracting even more users. This virtuous cycle is difficult for competitors to replicate. Its stateless architecture, with features like Smart System Upgrade (SSU) which allows for live software patching and upgrades with minimal disruption, delivers the high availability and operational efficiency demanded by these customers. This combination of a uniquely programmable, resilient, and cloud-friendly architecture positions Arista to not only capitalize on the general demand for faster Ethernet but to **continue gaining market share** by offering a demonstrably superior solution. Arista's relentless focus on innovation, as evidenced by its leadership in 400GbE and 800GbE, further solidifies its position and sets the stage for **continued dominance in the evolving Ethernet landscape**.

## Current Downside: Concentration, Competition and Supply Chain Risks

Despite the favorable market dynamics, Arista faces headwinds that could impact its performance. The company's **heavy reliance on a limited number of large hyperscale customers** creates concentration risk. As reported in Q3'24 earning, sales to Microsoft and Meta Platforms represented 18% and 21% of total revenue in fiscal 2023. A sudden slowdown in titan's cloud capex in networking (Q3'19 Arista Earnings Call) or their shift towards alternative solutions (including in-house or white-box options) could significantly impact Arista's revenue. Furthermore, the networking market is intensely competitive, with **Nvidia aggressively pushing into Ethernet with Spectrum-X**, directly targeting Arista's core market and adding another layer of competitive pressure.. While Arista has diversified its supply chain, it remains partially reliant on Broadcom for merchant silicon, **the cyclical nature of the semiconductor industry** and potential supply chain disruptions remain an ongoing concern, potentially impacting Arista's ability to meet demand and maintain margins. Historically, these challenges have limited Arista's ability to meet demand and put pressure on its margins as acknowledged by management in Q4'22 earnings call. The company's high valuation also suggests that much of the near-term upside may already be priced in, leaving little room for error. Finally, there is also **the proxy war against Nvidia** which could impact negatively the company.

## Future Implications: AI Growth Catalyst and the Ethernet vs InfiniBand Battleground

The rise of artificial intelligence (AI) and machine learning (ML) presents a transformative opportunity for Arista Networks. As AI workloads become increasingly prevalent, the demand for high-bandwidth, low-latency networking solutions is surging. While InfiniBand, championed by NVIDIA, has historically been a preferred choice for AI, holding a dominant ~65% market share in recent quarters as illustrated in the chart, **Arista is strategically positioning Ethernet** as a compelling alternative. Exhibition 4 clearly demonstrates that Ethernet players are rapidly gaining traction, with Arista being a significant beneficiary, growing its market share to over ~20%. The company's advancements in low-latency Ethernet switching, combined with its support for RDMA over Converged Ethernet (RoCE) and the inherent scalability of Ethernet, make it a strong contender for AI infrastructure. The widespread adoption of Ethernet in cloud environments further strengthens Arista's position.

However, **capturing further market share from InfiniBand will be a significant challenge**. NVIDIA, with its mature InfiniBand ecosystem and established relationships, holds a strong incumbent advantage. Furthermore, **NVIDIA is now directly challenging Arista in the Ethernet arena with its Spectrum-X platform**, which offers enhanced performance for AI workloads. Exhibition 4 also indicates that Cisco is also vying for a piece of this market with nearly 10% share and rising, leveraging their own custom silicon and broad networking portfolio. Successfully displacing InfiniBand will require Arista to not only demonstrate superior or equivalent performance and scalability but also t**o convince customers to switch to a different networking paradigm**. While Arista is making progress, as shown by the upward trend in its market share, the chart also reveals that Celestica is rapidly gaining ground with a surprising ~12% share close to Arista, supplying white-box solutions to cloud providers. This highlights **the dynamic nature of the market and the presence of emerging competitors**. Therefore, while the potential rewards are significant, the risk of failing to gain substantial traction in the AI market against entrenched InfiniBand solutions, incumbent player Cisco, and emerging players like Nvidia and Celestica remains a key consideration for Arista's long-term growth trajectory. **Arista must continue to innovate and differentiate its Ethernet offerings**, potentially through in-house silicon development or strategic acquisitions, to maintain its competitive edge in this rapidly evolving market.

Cascade Research

# Sources

1.  Arista Networks, Inc. (2024). *Form 10-K: Annual report for the fiscal year ended December 31, 2023.* Retrieved from https://www.arista.com

2.  Arista Networks, Inc. (2024). *Form 10-Q: Quarterly report for the period ended September 30, 2024.* Retrieved from https://www.arista.com

3.  Arista Networks, Inc. (2024). *Form 10-Q: Quarterly report for the period ended September 30, 2024.* Retrieved from https://www.arista.com

4.  Bloomberg Terminal. (2024). *Financial statement analysis: Balance sheet of Arista Networks Inc.* Retrieved from Bloomberg Terminal.

5.  Bloomberg Terminal. (2024). *Financial statement analysis: Income statement of Arista Networks Inc.* Retrieved from Bloomberg Terminal.

6.  Bloomberg Terminal. (2024). *Financial statement analysis: Cash flow statement of Arista Networks Inc.* Retrieved from Bloomberg Terminal.

7.  Broadcom. (n.d.). *Deploying AI/ML training clusters with IP Ethernet: InfiniBand vs. Ethernet.* Broadcom. Retrieved January 9, 2025, from https://www.broadcom.com/blog/deploying-ai-ml-training-clusters-with-ip-ethernet

8.  650 Group. (n.d.). *Data center AI networking to surge to nearly $20B in 2025, according to 650 Group.* 650 Group. Retrieved January 9, 2025, from https://650group.com/press-releases/data-center-ai-networking-to-surge-to-nearly-20b-in-2025-according-to-650-group/

9.  Avison Young. (n.d.). *Global datasphere's rapid growth expected to drive demand on data centers.* Avison Young. Retrieved January 9, 2025, from https://www.avisonyoung.us/w/global-dataspheres-rapid-growth-expected-to-drive-demand-on-data-centers

10. Bloomberg Intelligence. (n.d.). *AI networking sales.*

# Team Overview

### Head of Equity Research – Dk Lee

Dk Lee is an MSc Finance student at UCL, holding a BSc in Banking and International Finance from City, University of London, Cass Business School. He gained 18 months of disciplined experience from the military, which made him a resilient and consistent individual, and gained hands-on expertise as a research assistant at Counterpoint Research. His passion lies in uncovering hidden investment opportunities and conducting in-depth analysis to drive long-term value, which aligns with the aim of the Cascade Research Equity team.
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### Analyst Equity Research – Darin Han

Darin holds a BSc in Economics from the University of Warwick. She has previous experience in markets with a key focus on macroeconomic analysis and industry trends. With a top-down approach to research of the market environment, industry, and current events, she generated +7% Y2023 compared to the ACWI in her previous role as a Fund Strategist in a securities firm in Thailand. She has passed the CFA level 1 exam and is the process of pursuing the whole qualification.

### Analyst Equity Research – Daniel So

Daniel holds an MA in Economics with Management Science from the University of Edinburgh. He spent two years as a Management Analyst at Citibank Hong Kong, where he focused on the implementation of AI and Robotics technologies. This experience provided him with valuable insights and frameworks for evaluating emerging technologies. Daniel is also an active investor who utilizes a fundamental investing approach, emphasizing business models, economic moats, financial sustainability and management integrity.

### Analyst Equity Research – Rayne Wong

Rayne is pursuing an MSc in Finance at UCL, specializing in Quantitative Finance and Asset Management. He holds a BSc in Business Economics from the University of East Anglia. As a Financial Analyst at the Oakwood ESG Investment Fund, he developed industry reports and supported strategic investments to aid underprivileged students. With a strong interest in structuring, Rayne is keen on applying quantitative and market-driven approaches to create innovative financial solutions. A quadralingual professional, he leverages analytical skills and a global perspective to deliver insightful and sustainable equity research.