

**Hewlett Packard
Enterprise**

TECHNOLOGY SECTOR

IT SERVICES

SPRING 2024



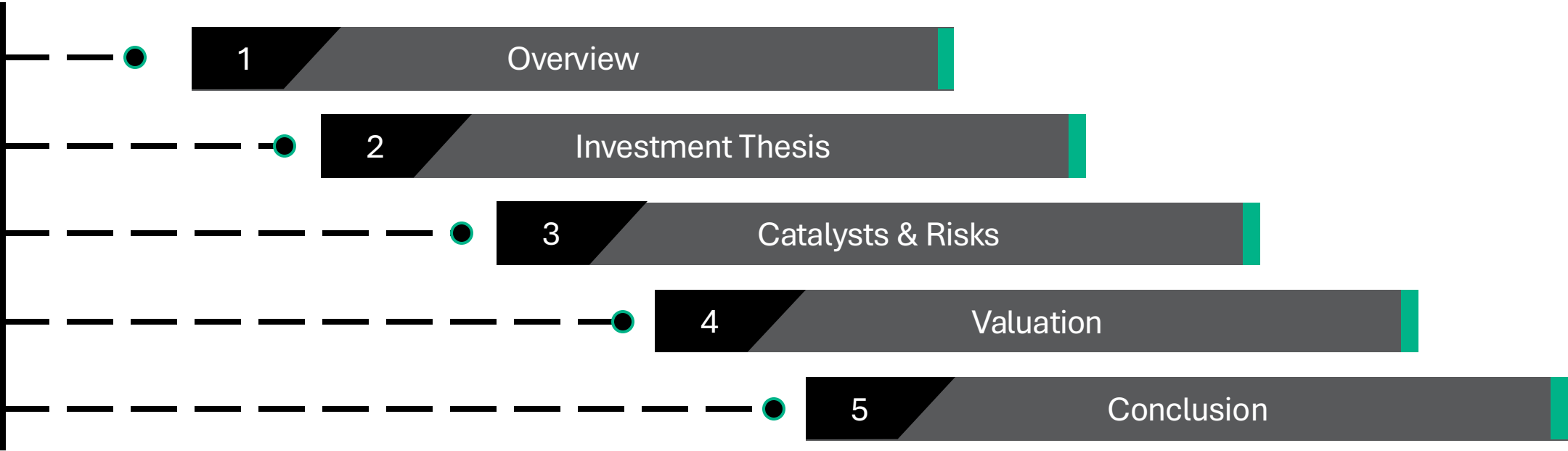
Deepesh Singh
Sector Lead



Jaylen Akina-Boudy
Analyst

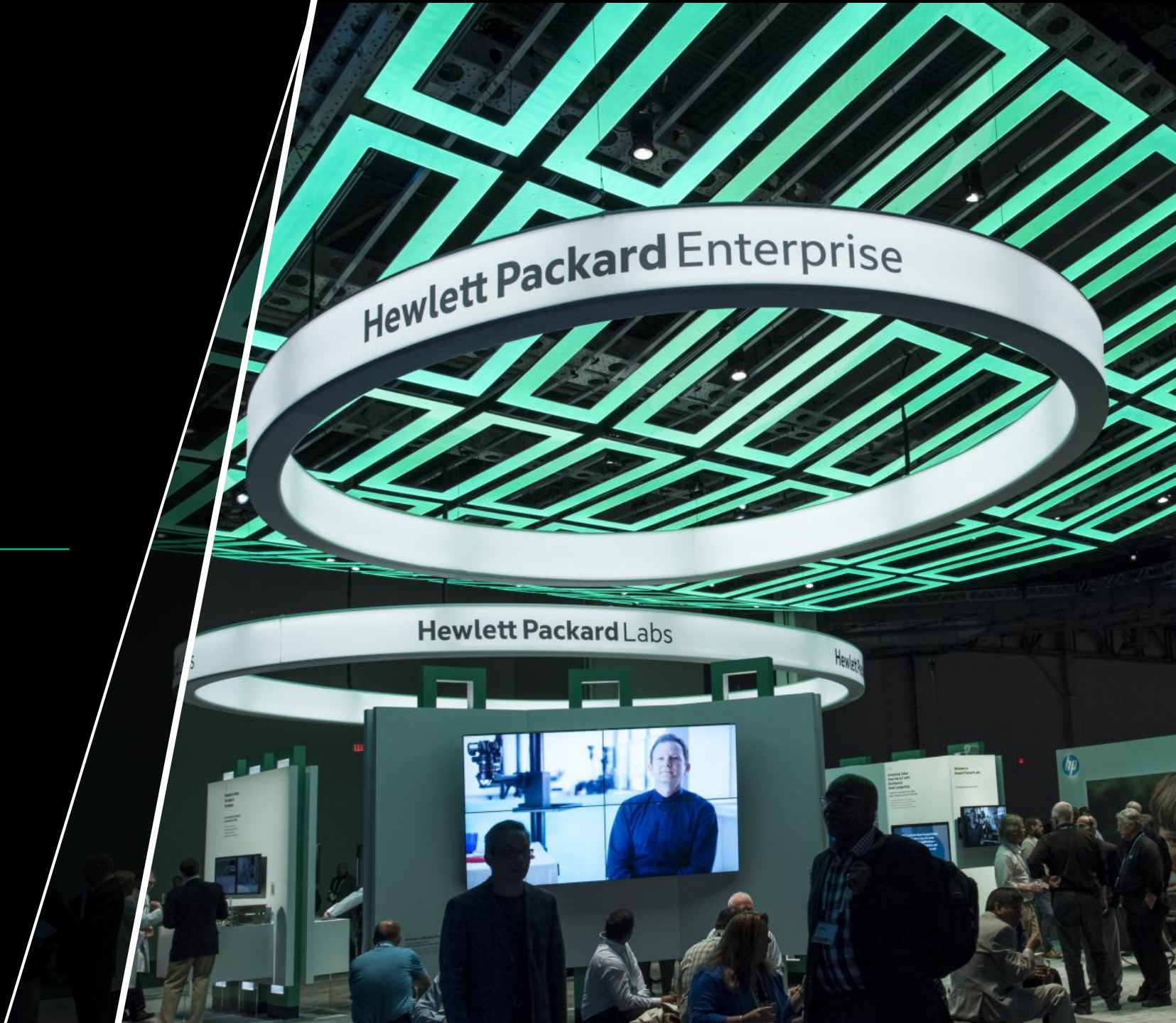


Sean Yuan
Analyst



Overview

Company & Industry



General Info

Hewlett Packard Enterprise is a leading global IT company with the ability to transform businesses by helping individuals and companies capture, analyze, and act upon data beyond the confines of a data center. Headquartered in Austin, Texas, the company has focused on reimagining the future to advance the way people live and work. HPE offers unique, open, and intelligent technology solutions for enterprises and corporations through their products: Server, Hybrid Cloud, Intelligent Edge, Financial Services, and Corporate Investment.



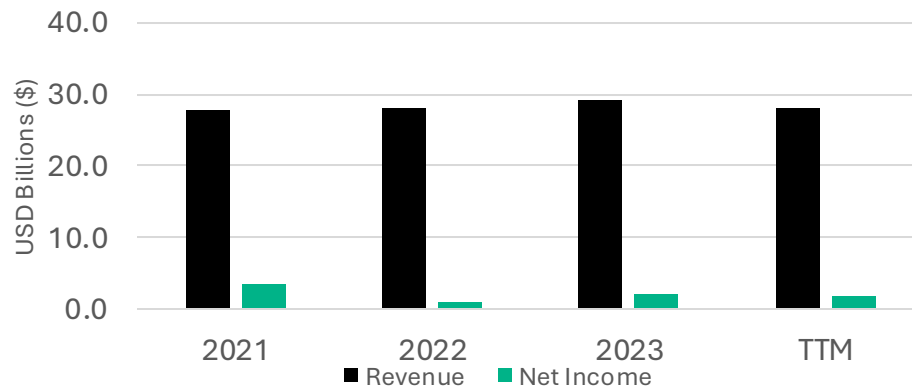


**Hewlett Packard
Enterprise**

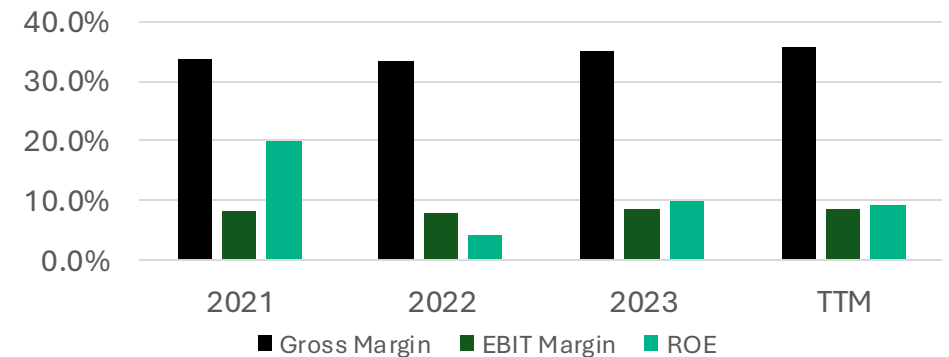
Stock Price: \$17.02 **Market Cap:** \$22.31 Billion
Forward P/E Ratio: 9.41x **EV/EBITDA Ratio:** 6.55x

Financial Info

Revenue vs Net Income



Margins & Returns

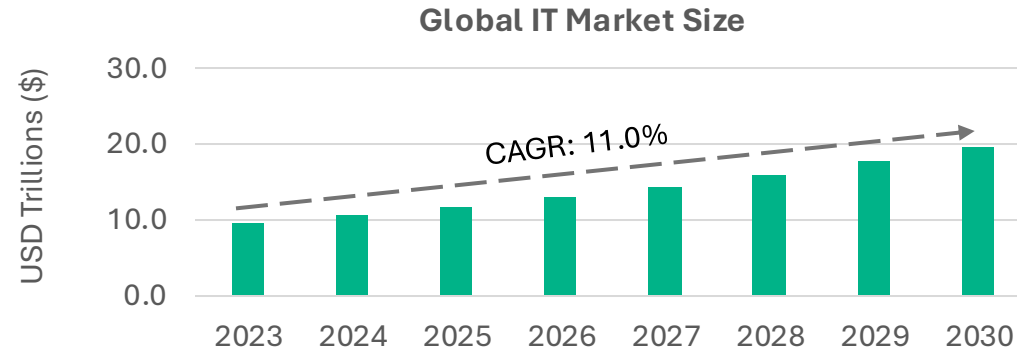




Market Info & Growth

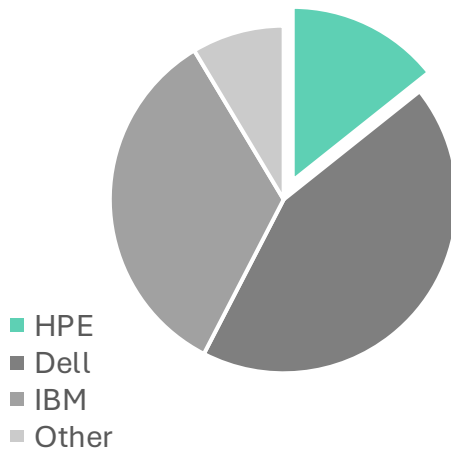
The **Information Technology** industry is the use of computers, storage, networking, and other physical devices, infrastructure, and processes to create, process, store, secure, and exchange all forms of electronic data. The product and service types are IT services, computer hardware, Telecom, and Software products.

IT Market: \$9.4 T → \$20 T by 2030



Market Info

Computer Hardware



Key Players & Factors

Players:

Google Cloud, Microsoft Azure, AWS, Dell, Cisco, IBM, Oracle, Lenovo, NetApp, Fujitsu, Broadcom (VMWare), Huawei

Drivers:

Adoption of AI/ML → Growing usage of AI/ML to streamline productivity within enterprises

Consumer Preferences → Increased demand for cloud/hybrid-cloud computing

Cybersecurity Concerns → Companies have invested in solutions to protect data and digital assets

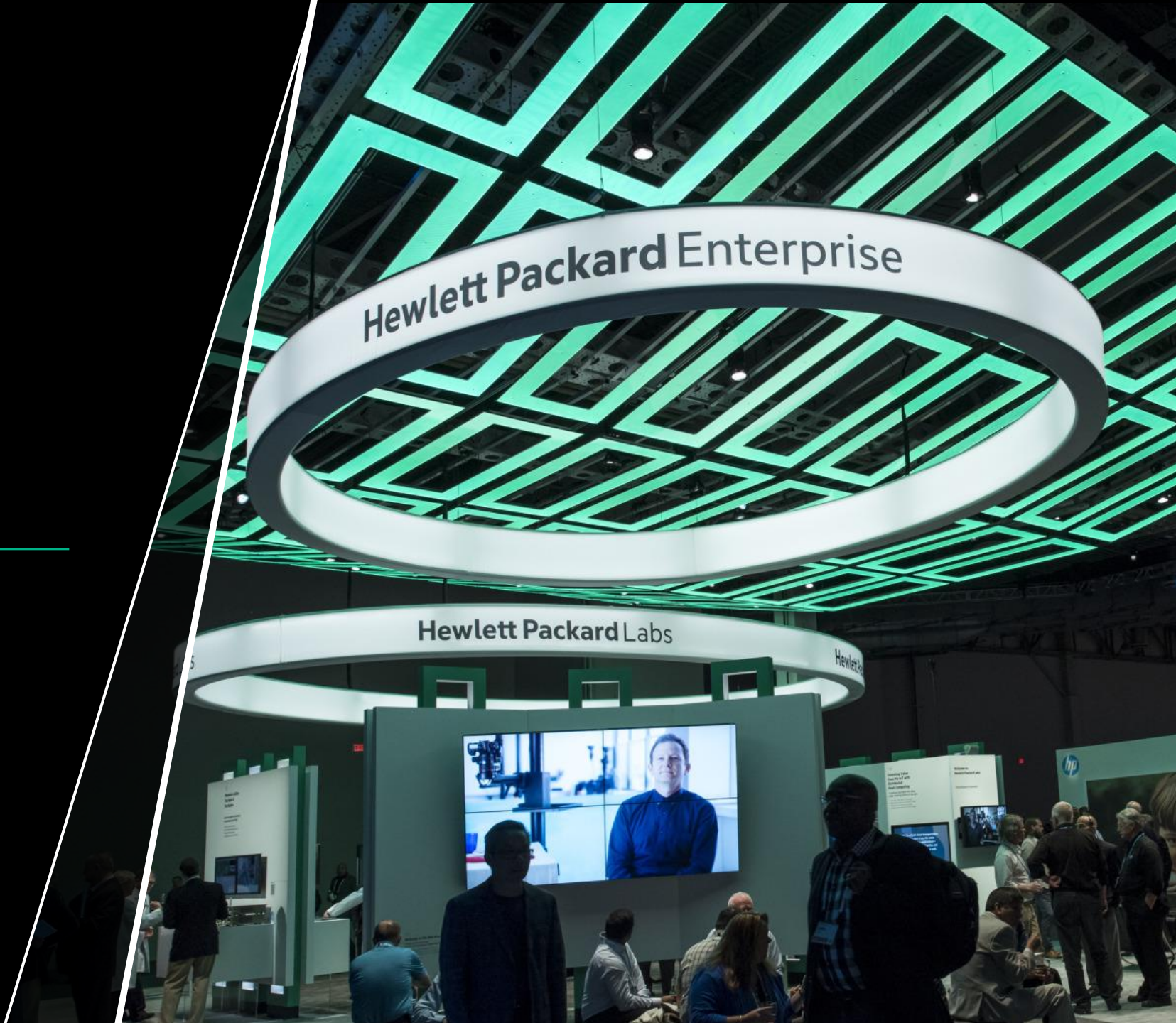
The Proliferation of IoT Services → Rising demand for real-time processing, scalability, and lower latency services

Constraints:

High initial cost; Complex infrastructure; Cyberattacks

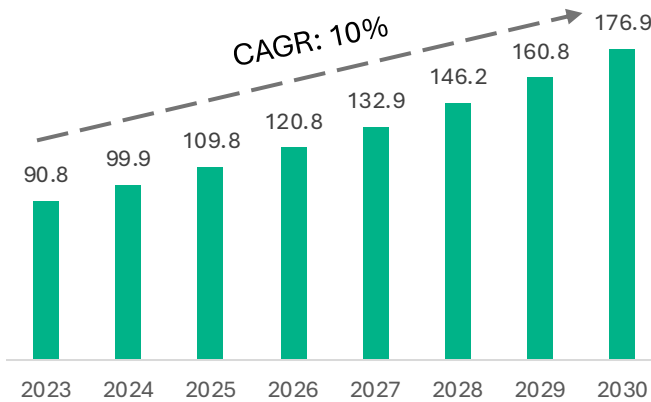
Investment Thesis I

Unrealized Server &
Edge-to-Cloud Specialty

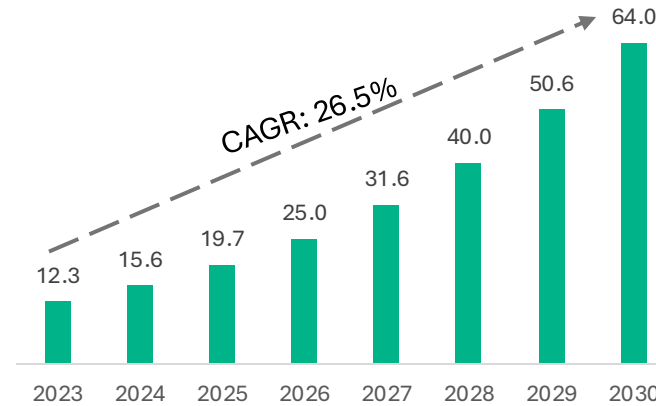


Global Server Market

Server Market Size in Billions (\$)



AI Server Market Size in Billions (\$)



HPE share price was recently affected due to lower-than-expected AI server order conversion rate: Tight GPU availability & Realized Revenue Pushed out

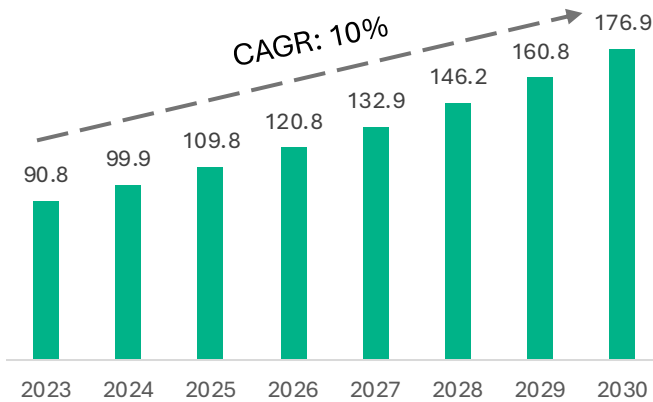
Overall, market is booming.

HPE has expanded its enterprise software partnership with NVDA, backlog remains strong and growing, and there exist variety of opportunities for cross-selling.

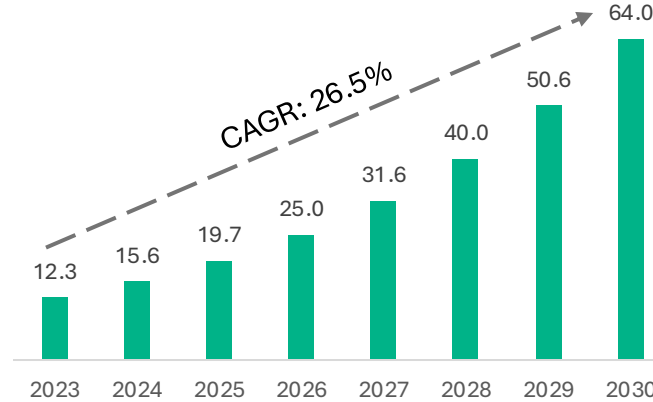


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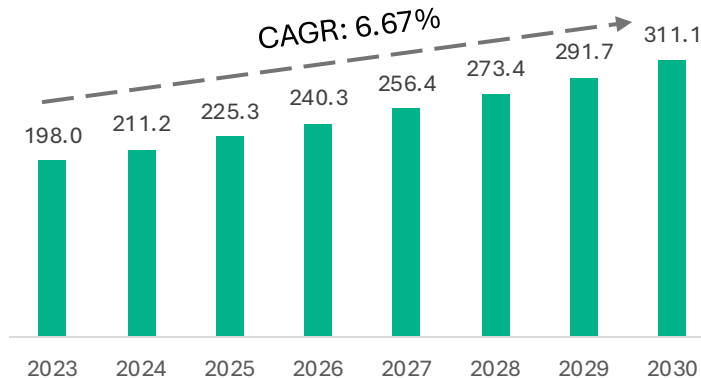
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Solutions:

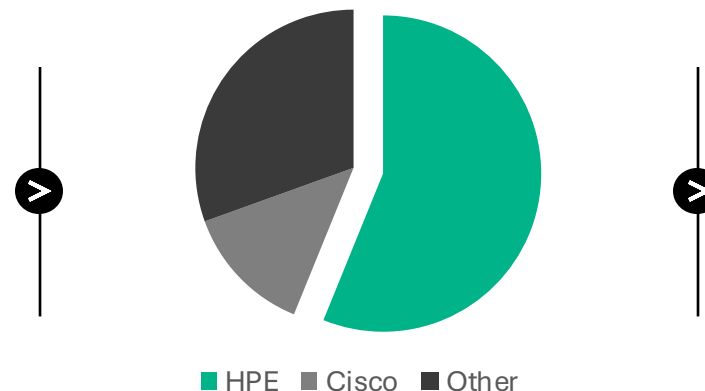
- Expanded its enterprise software partnership with NVDA
- Orderbook remains strong and growing

Global Networking Market

Networking Hardware Market Size in Billions (\$)



Network Hardware Market Share



Like peers, HPE experienced a greater-than-expected weakening in campus networking demand.

- Longer customer digestion times partially offset the benefit of backlog.

Solutions:

- Gaining market share in certain segments
- Improvements in market are expected towards the end of '24



Background

Launched in 2018, HPE GreenLake is HPE's flagship edge-to-cloud platform that leverages a hybrid cloud.

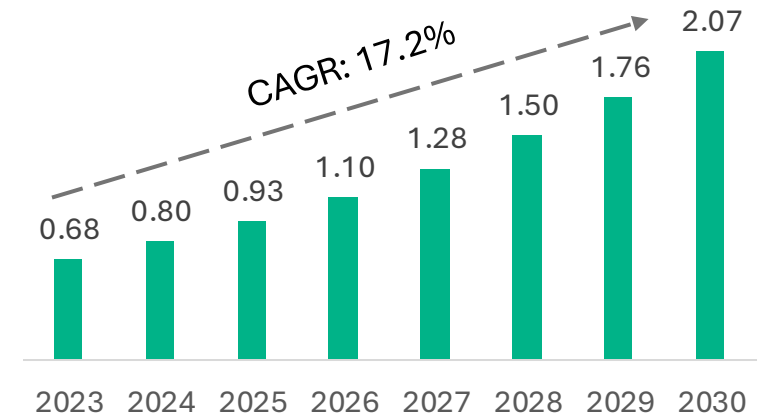
“A more flexible and scalable way to consume IT resources versus the traditional cumbersome on-premises model.”

Types of Clouds

- **Public:** services offered over internet & available to anyone who wants to purchase them.
- **Private:** cloud infrastructure dedicated to a single org, hosted on-premises or by a third-party provider.
- **Hybrid:** combo of public and private clouds, allowing data & applications to be shared between them.

Global Cloud Computing Market

Market Size in Trillions (\$)



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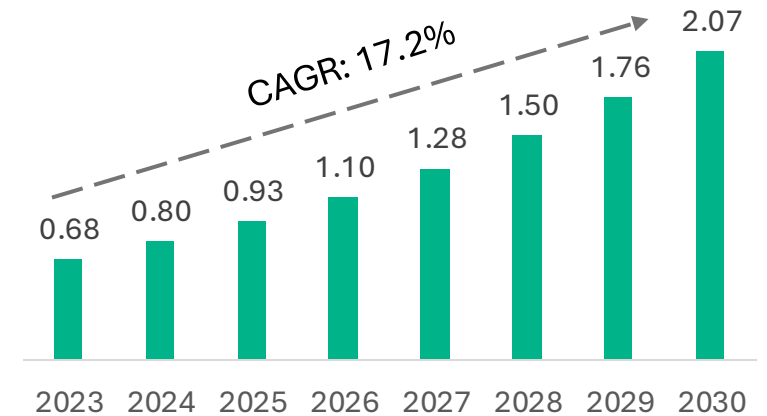
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Global Cloud Computing Market

Market Size in Trillions (\$)



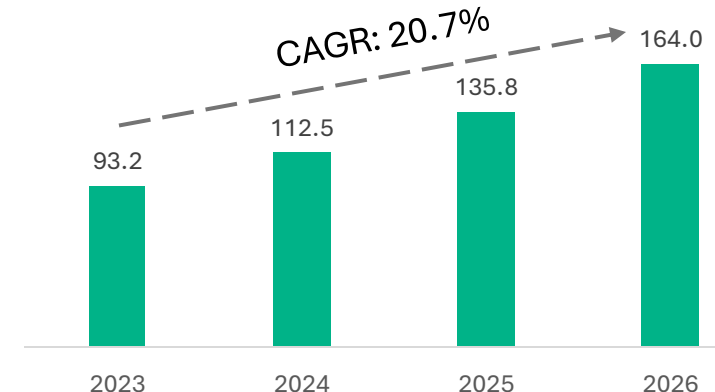
Edge computing and a hybrid cloud is the future of cloud computing, and this is HPE Intelligent Edge and GreenLake’s focus.

*Edge computing **reduces latency, increases security, improves scalability, enhances reliability, and reduces costs.***

*A hybrid cloud provides **scalability of a public cloud with the security of a private cloud, but with better costs, control, and speed.***



Hybrid Cloud TAM in Billions (\$)





HPE's storage and networking software and services are the fastest growth elements of ARR. Over the past year, GreenLake being the primary driver of highest Q1 year-over-year rise in ARR (44%) with HPE Intelligent Edge's portfolio of subscription revenue growing well above 50%.

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Hybrid Cloud

Management

- OpsRam
- QuattroLabs

Analytics

- CloudPhysics
- Cloud Cruiser
- Nimble, Ampool

Security

- Scytale, Zerto

AI

- Pachyderm
- Determined AI

Systems

- SimpliVitty, SGI, Cray
- CTP, RedPixie



Bridge

- SilverPeak
- Plexxi, MapR
- BlueData

Security

- Axis



Intelligent Edge

- Aruba
- Athonet
- RASA

Security

- Niara, Cape

HPE GreenLake

We believe market has not incorporated the full effect of synergies

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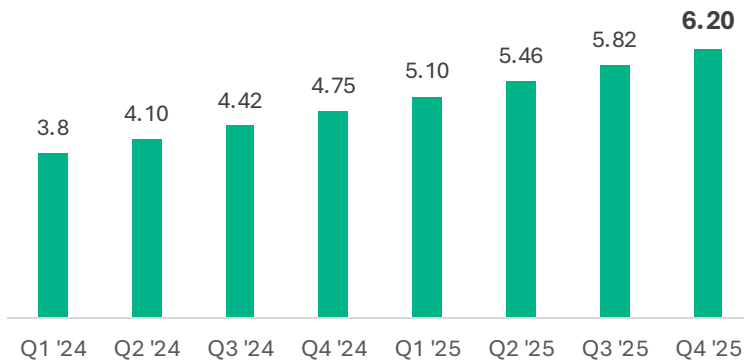
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HPE GreenLake

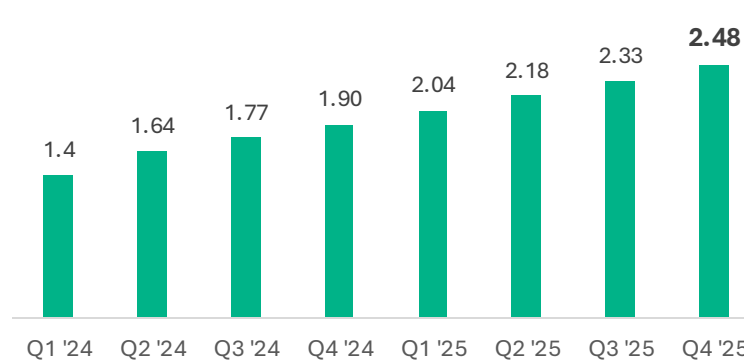
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GreenLake's Projected ARR Contribution Estimates

Device Connections in Millions

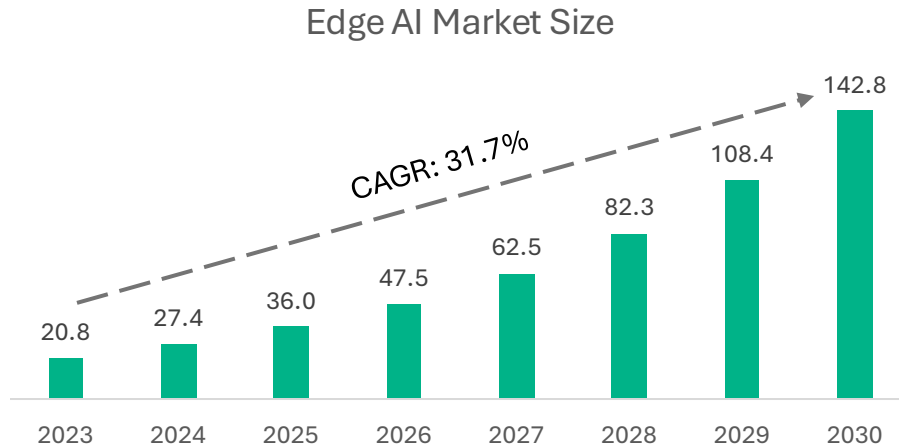


ARR in Billions (\$)



Increase in Device Connections also allows opportunity for cross-selling with HPE's server, networking, and storage products.

Global Edge AI Market



In the past, this involved sending data to a centralized data center via a cloud-based API

Edge artificial intelligence (AI) is an extension of edge computing that enables the processing of data and algorithms directly from an endpoint device.

Ex: Smart Devices (Google Home) & Autonomous Vehicles

HPE Developments

HPE Edgeline Converged Systems: hardware solutions designed to bring computing power to the edge of the network.

A Distributed Converged Compute Model that gifts companies real-time local decision-making, which allows autonomous data processing and analysis.

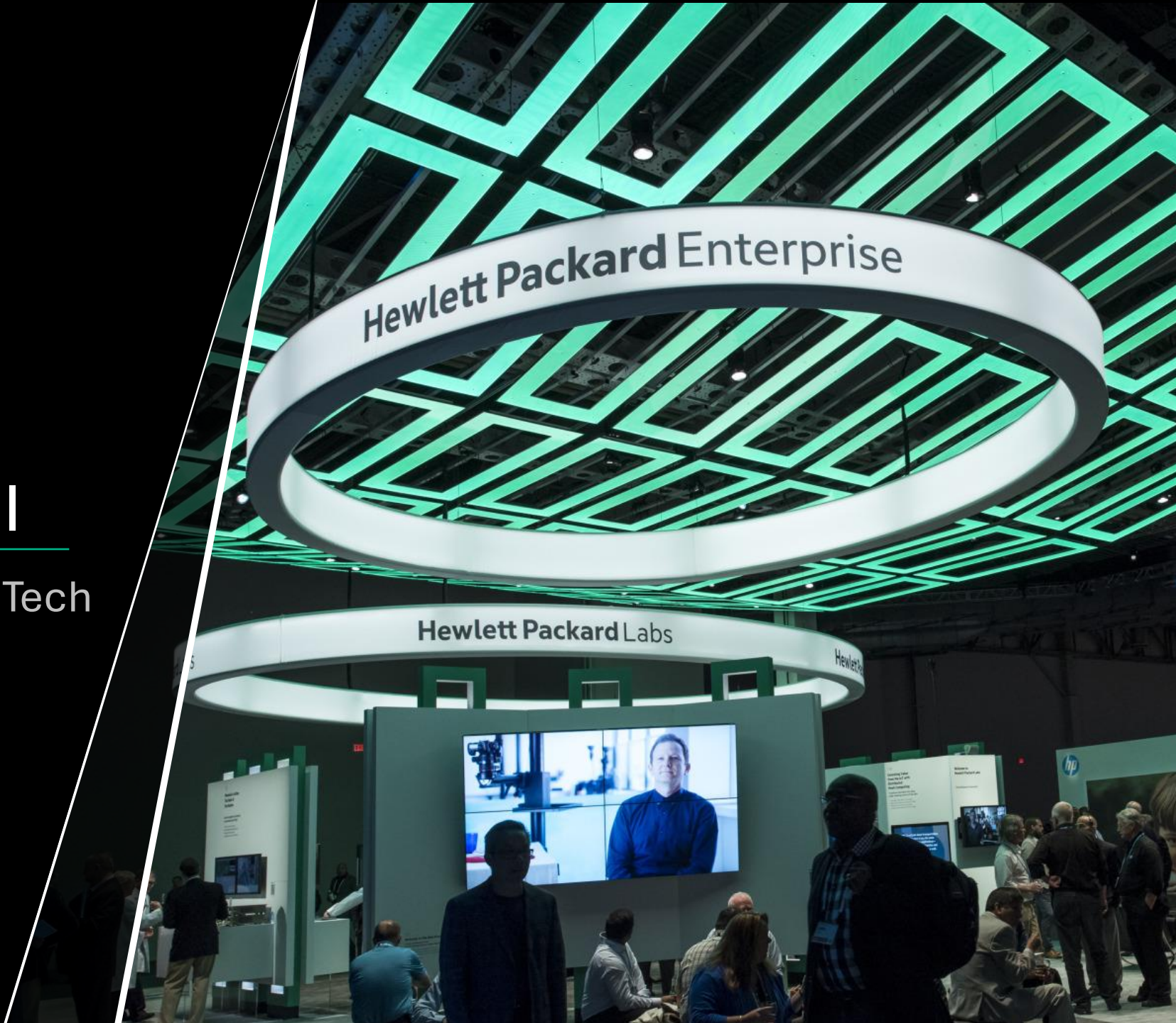
Aruba Edge Services Platform: industry's first scalable AI-powered, cloud-native platform designed to manage and optimize edge environments

“HPE Spaceborne Computer [Provides ISS Edge AI capabilities] to Meet In-Orbit Data Processing Needs and Advance Space Exploration”



Investment Thesis II

Commitment to R&D of New Tech





Segment Overview

As the **pioneering research division** of Hewlett Packard Enterprise, HP Labs is essential in propelling innovation through its long-term strategy approach to R&D. Collaborating with leading institutions and industry partners, Labs can **spearhead breakthroughs** in technology, expanding product lines to breakthroughs in **cloud computing and AI**. The division is the embodiment of HPE's dedication to innovation, driving the company's growth and establishing HPE as a **front-runner** in the technology sector.

Historical Performance

- Innovation dedication has led to substantial revenue growth (FY 2023)
- HPE Intelligent Edge **20% of total revenue** at 50% YoY growth
- HPE Greenlake **1.3 billion ARR** at 48% YoY growth



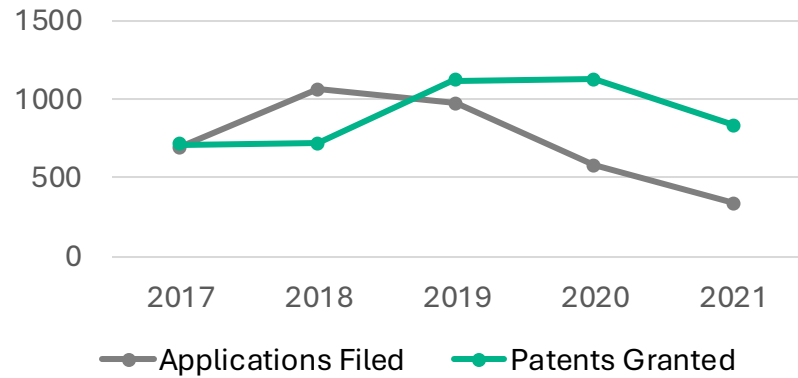
- Aligns R&D with HPE business group needs & roadmaps
- **Accelerates** R&D to commercialization process with **rapid integration** of key tech



- Strong focus on High-Performance Computing and AI tech
- Developed **six of the top ten** most energy-efficient supercomputers & **four of the top ten** fastest systems

HPE Patent Information

Patent Filed & Granted Per Year



20,000+ Active Patents

60,000+ Historic Patents

7,000+ Active Trademarks

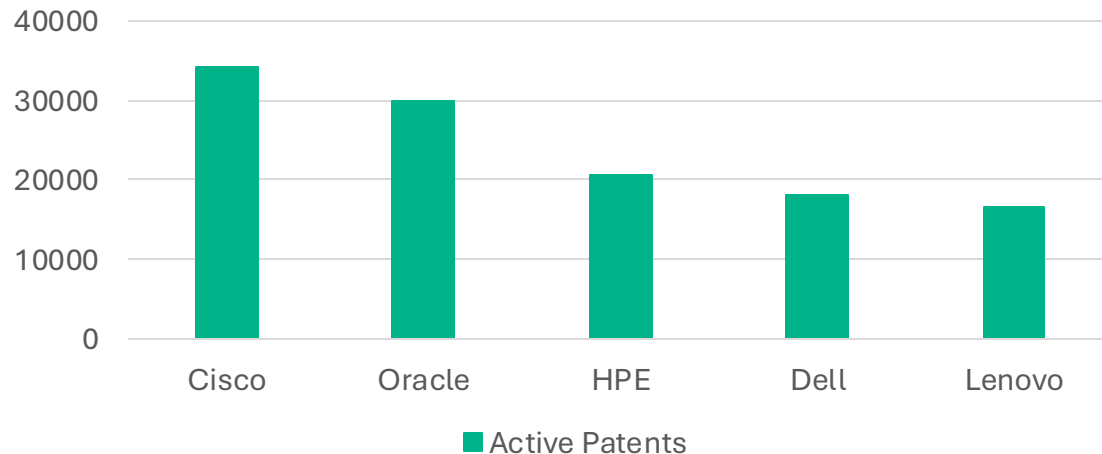
HPE's patent portfolio demonstrates its **strong innovation capabilities** and

Protects its numerous technical breakthroughs across AI, cloud, networking, security, & storage.

Differentiating HPE from competitors, its patent portfolio helps maintain a **competitive edge** and stay ahead of the industry.

Industry Patent Comparison

Total Active Patents (2023)



Patent portfolio concentrated in R&D key domains of **liquid cooling technology** and **AI/supercomputing solutions**

HPE to capitalize on the increasing necessity for sustainable AI infrastructure with **500+ patents** directed to liquid cooling

Protecting such technologies gives a competitive advantage in the **emerging generative AI market** with large workloads that HPE's supercomputers are capable of handling

New Technology Focus

HPE Specializes in developing new technologies in the **supercomputer and AI solution market** and currently **dominates** those markets with its products. AI model training requires a powerful AI infrastructure capable of handling intense workload s. HPE provides both the AI model training and the proper infrastructure through its **innovative technologies** in supercomputing.



Generative AI Solutions

Utilize supercomputers to **generate, analyze, optimize, and train** complex AI models at accelerated speeds.

Recent Technology

- Recent release of a new turnkey generative AI solution in December
- Collaboration between NVIDIA and HPE to help large enterprises accelerate generative AI and deep learning projects



Supercomputers

High-performance computing systems designed to fulfill complex tasks and process significant amounts of data at exceptionally fast speeds.

Recent Technology

- TSUBAME 4.0 supercomputer releasing this Spring
- Provides massive computational power and advanced hardware configurations
- Allows intense AI-driven scientific research and convergence science

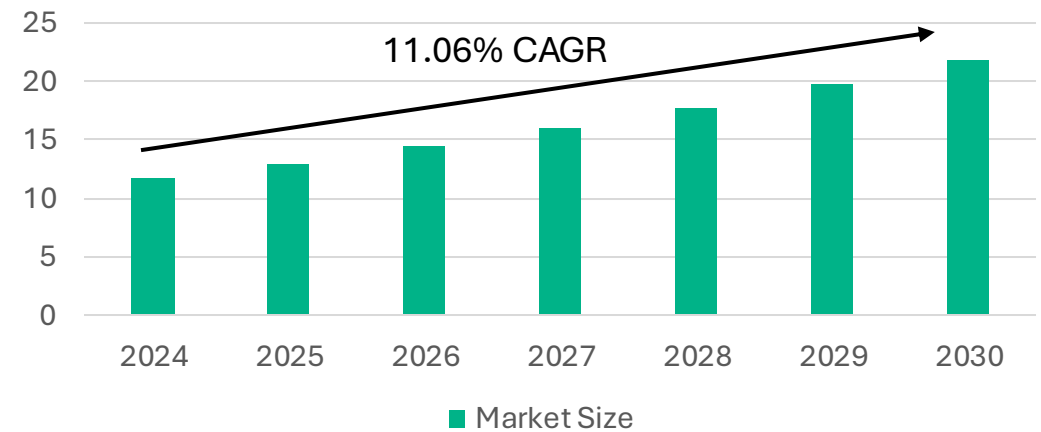


Market Dominance

- HPE specializes in the unique intellectual property of technologies in supercomputing, liquid cooling, and AI solutions
- HPE plans to **leverage its unique expertise** across supercomputing, AI infrastructure, and AI software platforms to maintain a dominant position and capture a larger share of the AI market
- This competitive edge and market dominance positions HPE well to **capture majority growth** in the **niche** supercomputer market expected to grow at a **CAGR of 11.06%** to 2030 and grow over 21.9 billion by then



Supercomputer Market USD billions

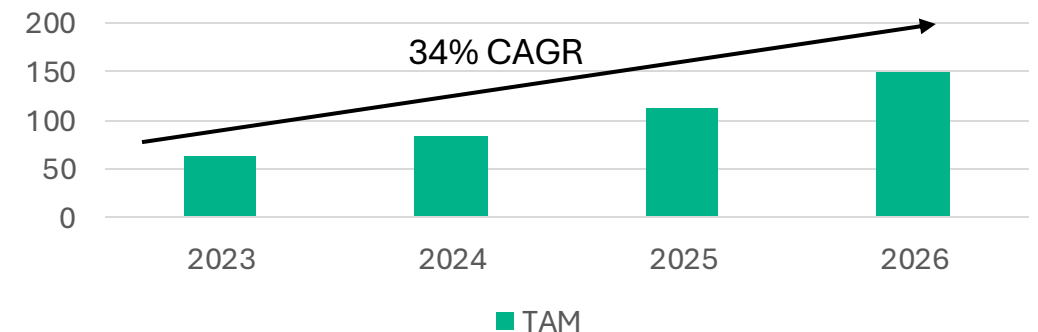


Increased TAM

- Increased AI usage is fueling significant market growth and driving investment in innovation for HPE
- HPE expects **higher growth** and **margin expansion** specializing in the three areas of the AI market (supercomputing, AI infrastructure, and AI software platform)
- AI market TAM is expected to grow to **150 billion** by 2026, growing at **34% CAGR**

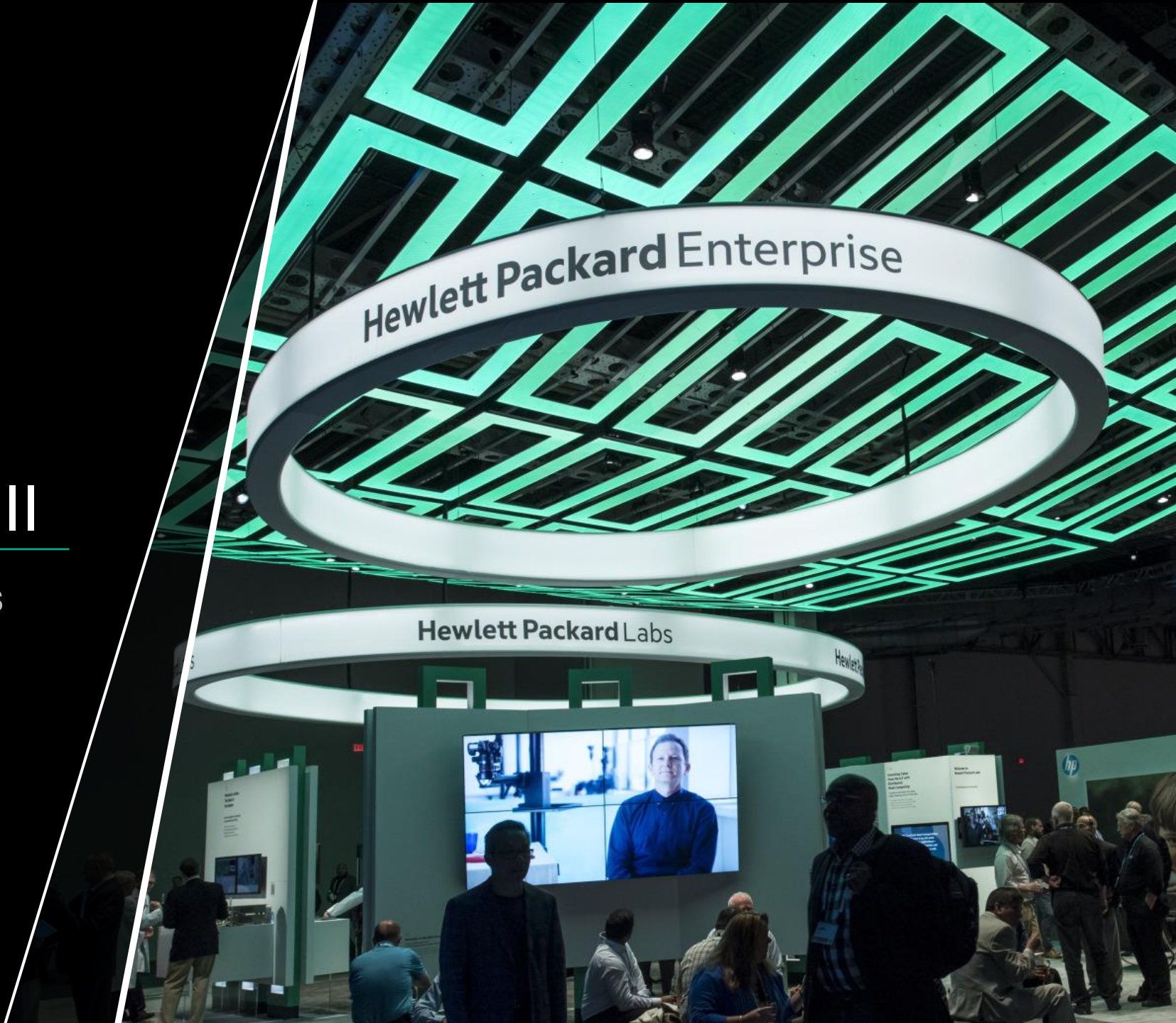


AI Total Addressable Market USD billions



Investment Thesis III

Shift to High Margin Products



HPE 3 Year Plan

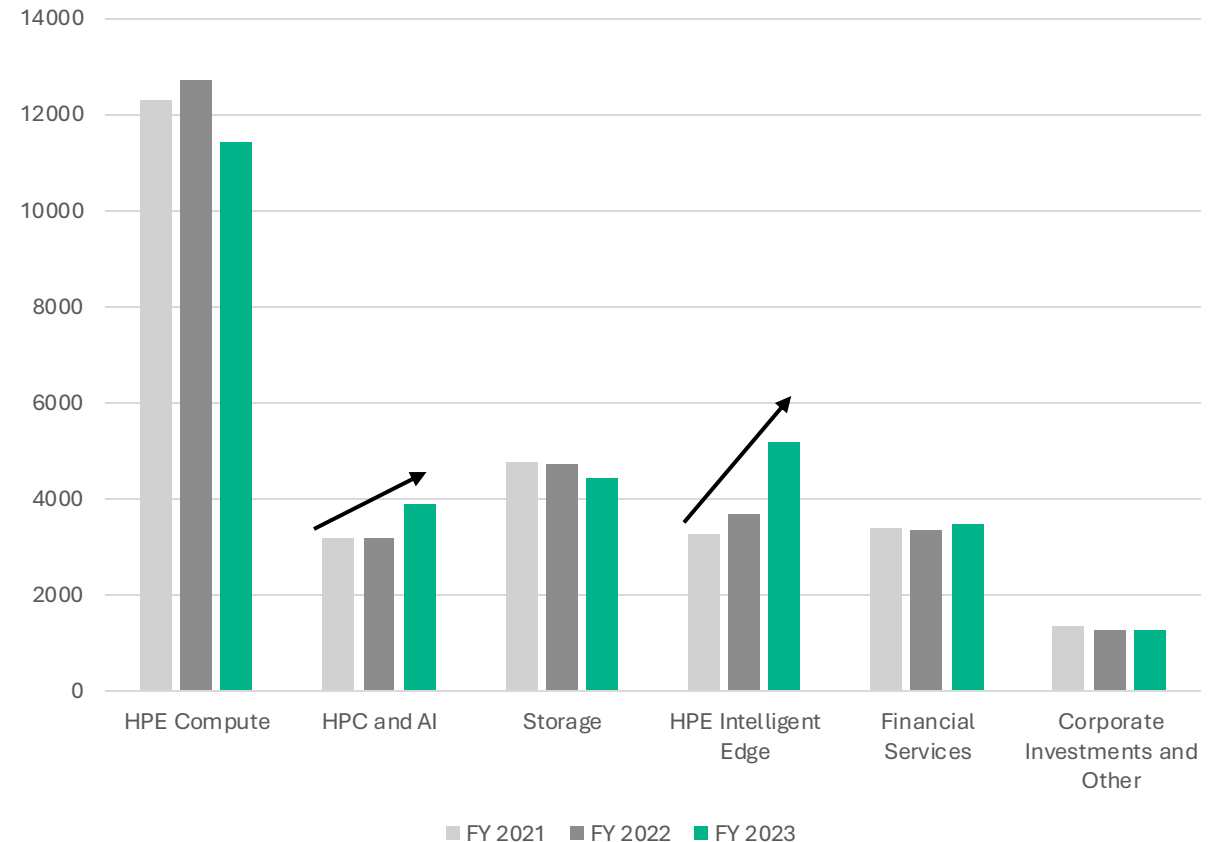
Edge Computing – allows remote devices to access the main network

High Performance Computing – faster calculations and data processing

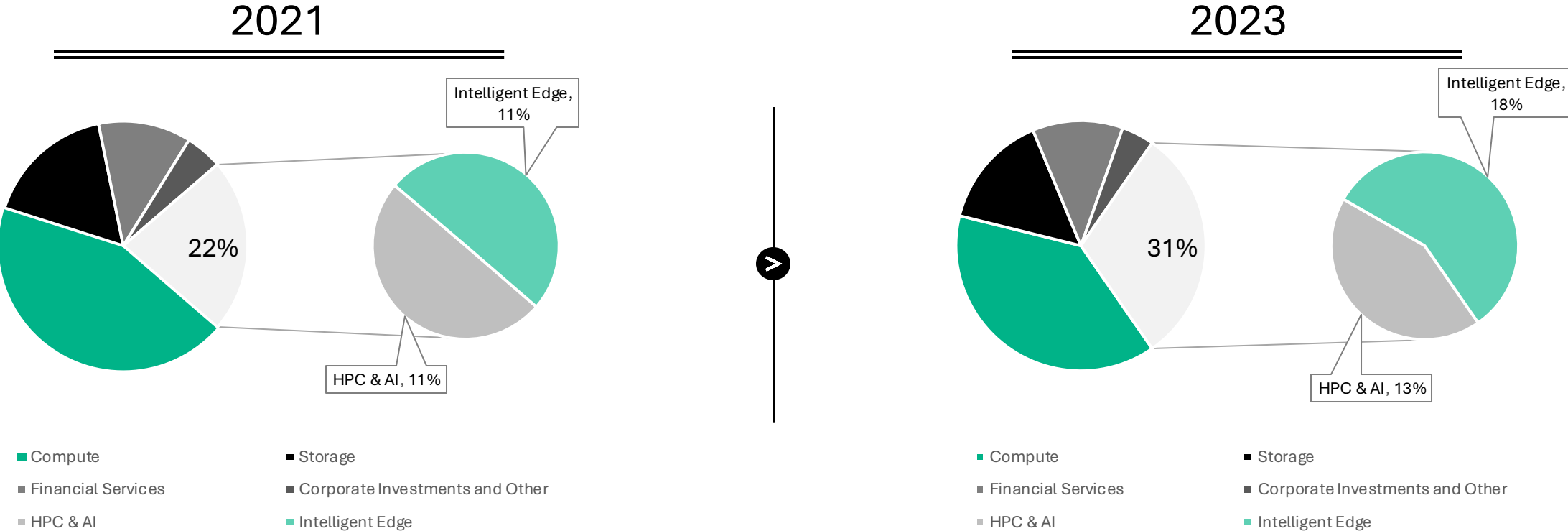
Artificial Intelligence – ML and AI products and services for automation, streamlining, innovation, and scaling

Leadership has announced that they are accelerating their plan for the three fastest growing and highest margin Segments to make up 50% of revenue by 2026.

Revenue by Segment

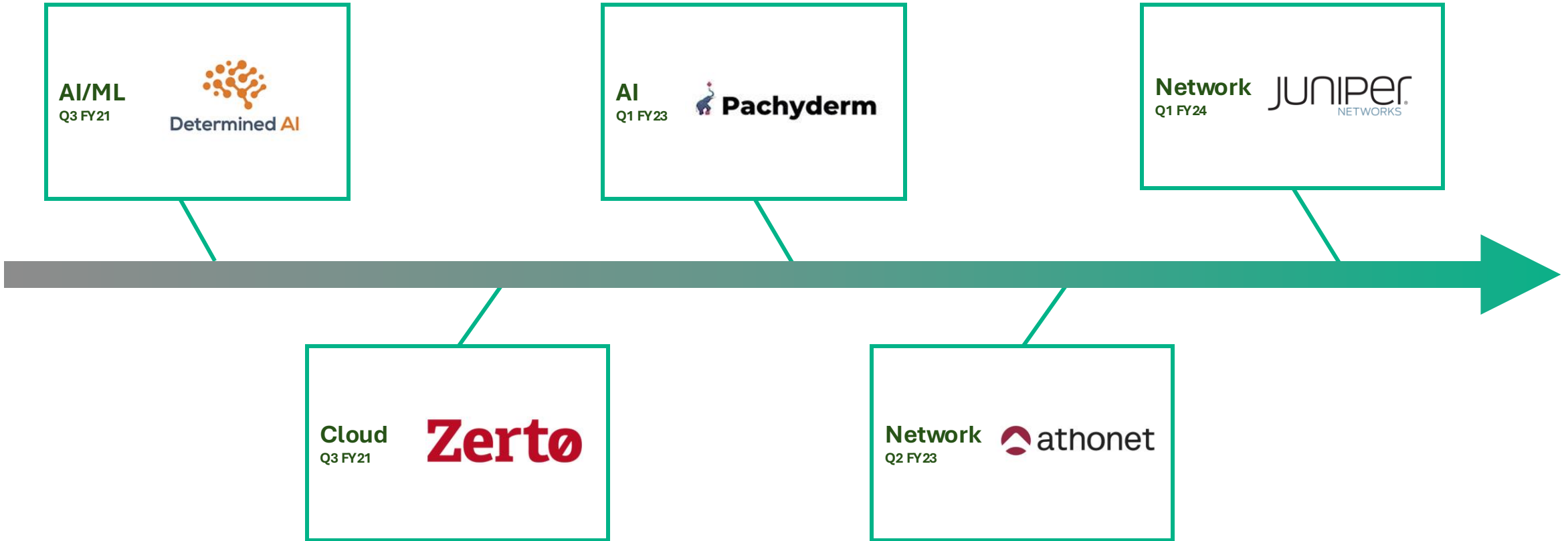


HPE announces Advancement of Long-Term Strategy

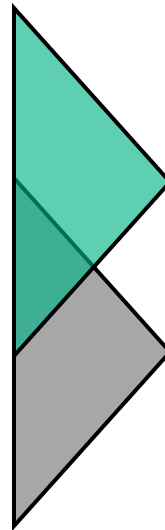
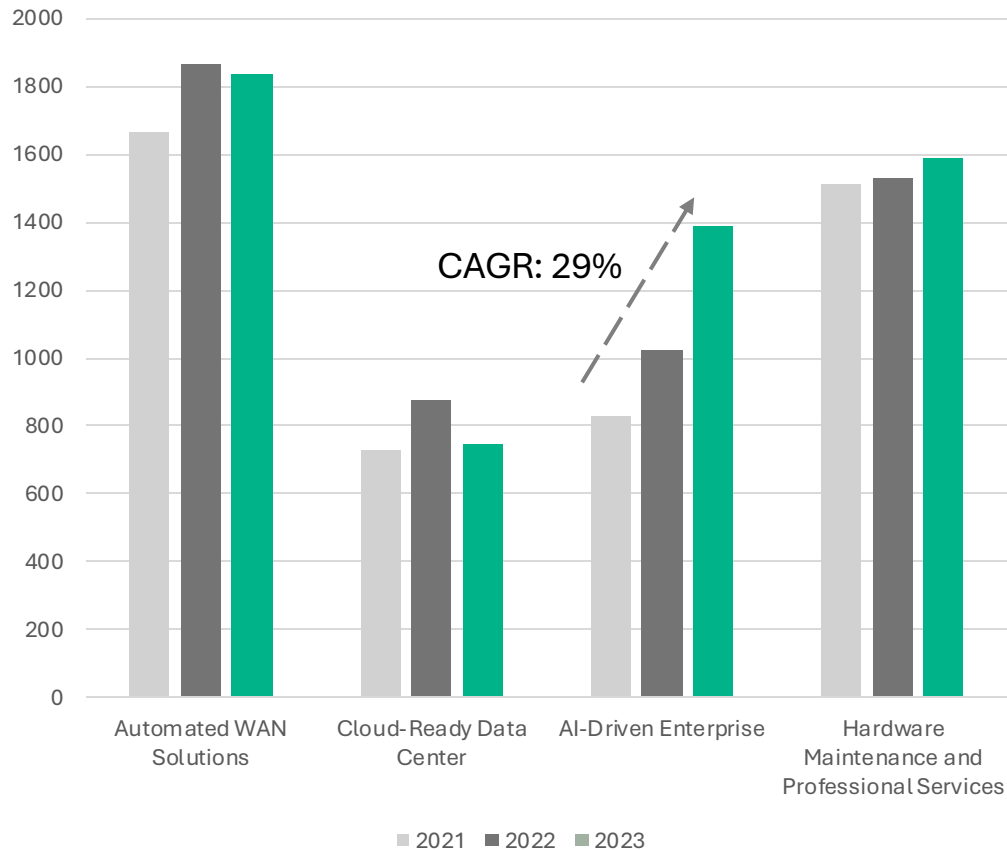


In the past 2 years HPC, AI, and EDGE have increased from 22% of revenue to 31% of revenue, which is on track to hit the desired 50% by 2026.

HPE is Jumping on the AI Trend



Juniper Revenue by Segment



Why?

JNPR was acquired for its fast-growing AI driven segment and its networking capabilities.

JNPR:
More comprehensive solutions.


HPE:

- Stronger networking portfolio
- Enters new markets
- Improve margins

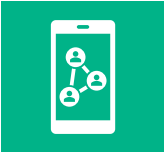
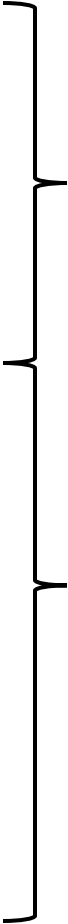
- HPE EV/EBITDA = 10.08
- JNPR EV/EBITDA = 27.71
- JNPR Comps EV/EBITDA = 14.07

 Juniper

 Hewlett Packard Enterprises

 Microsoft

 Amazon Web Services



AI Networking (JNPR Mist)

HPE expands its AI Networking Portfolio

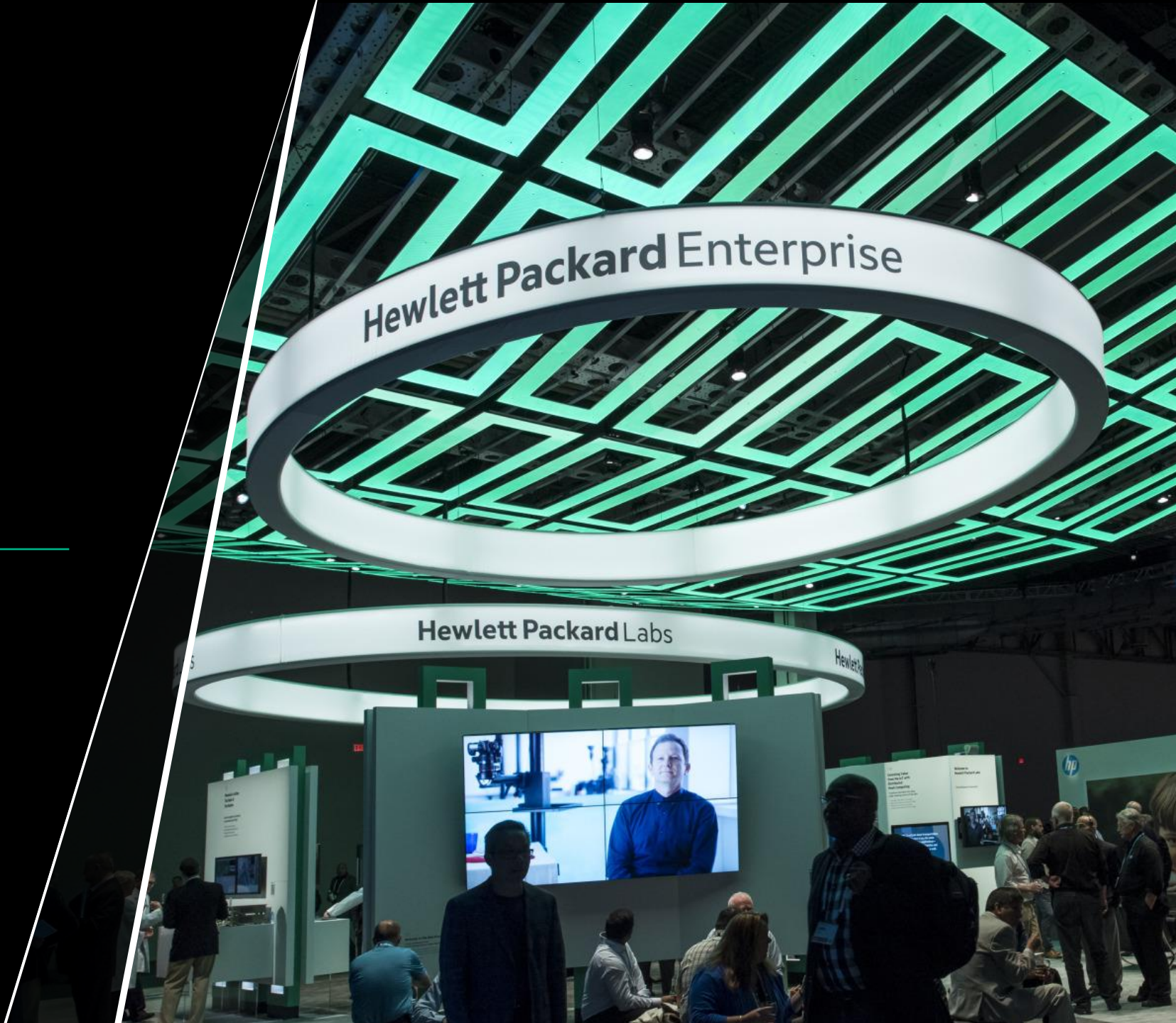


Hybrid Cloud (MSFT Azure, AWS/EDGE)

HPE continually partners with Industry Leaders, increasing Market Share

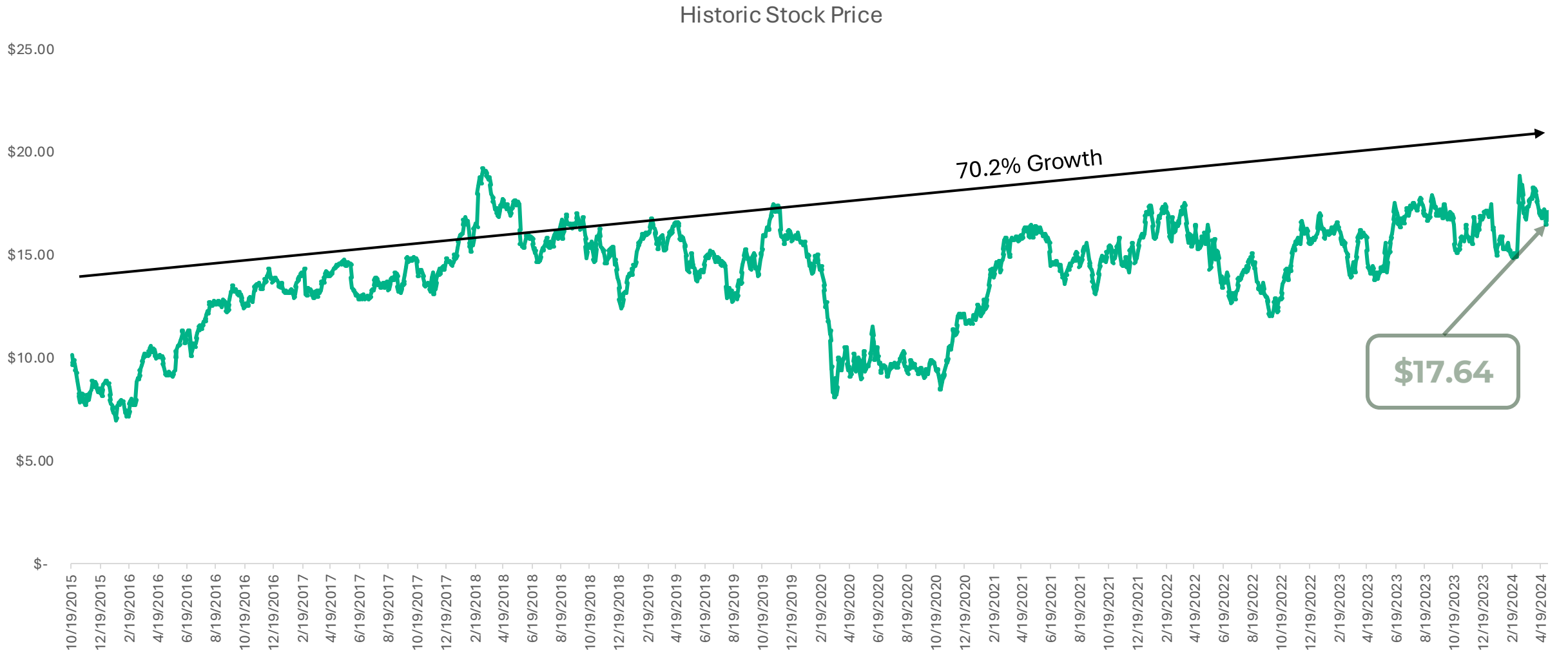
Valuation

DCF & Comparable Analysis



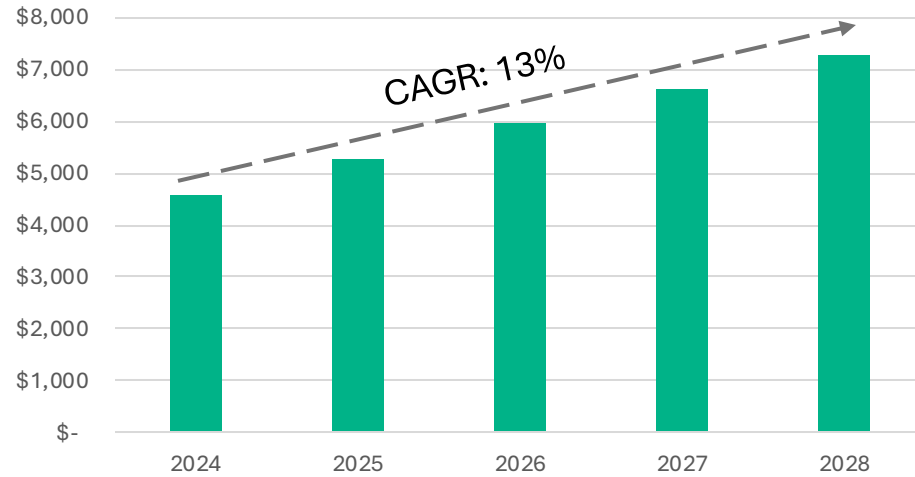
Historic Stock Price



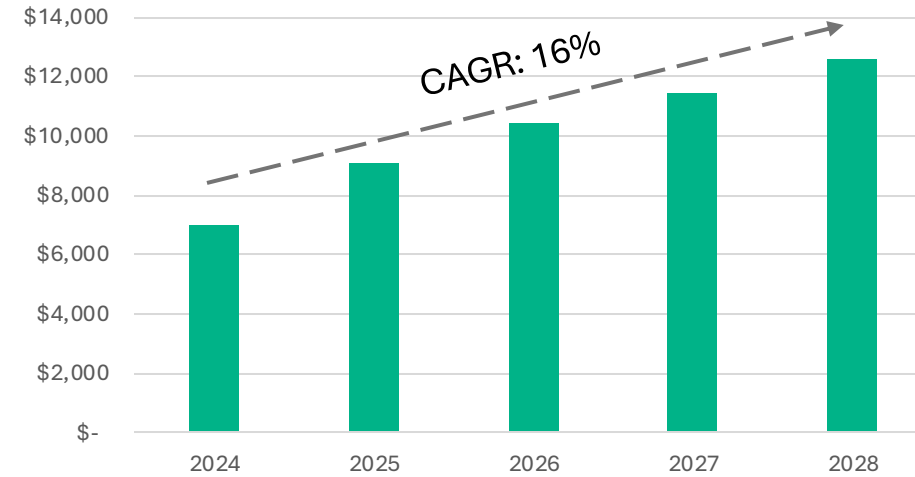




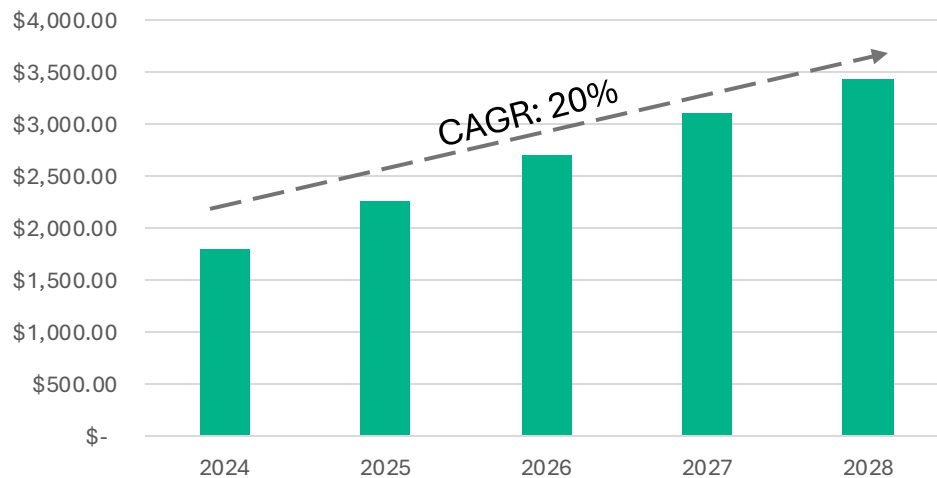
HPC and AI



HPE Intelligent Edge



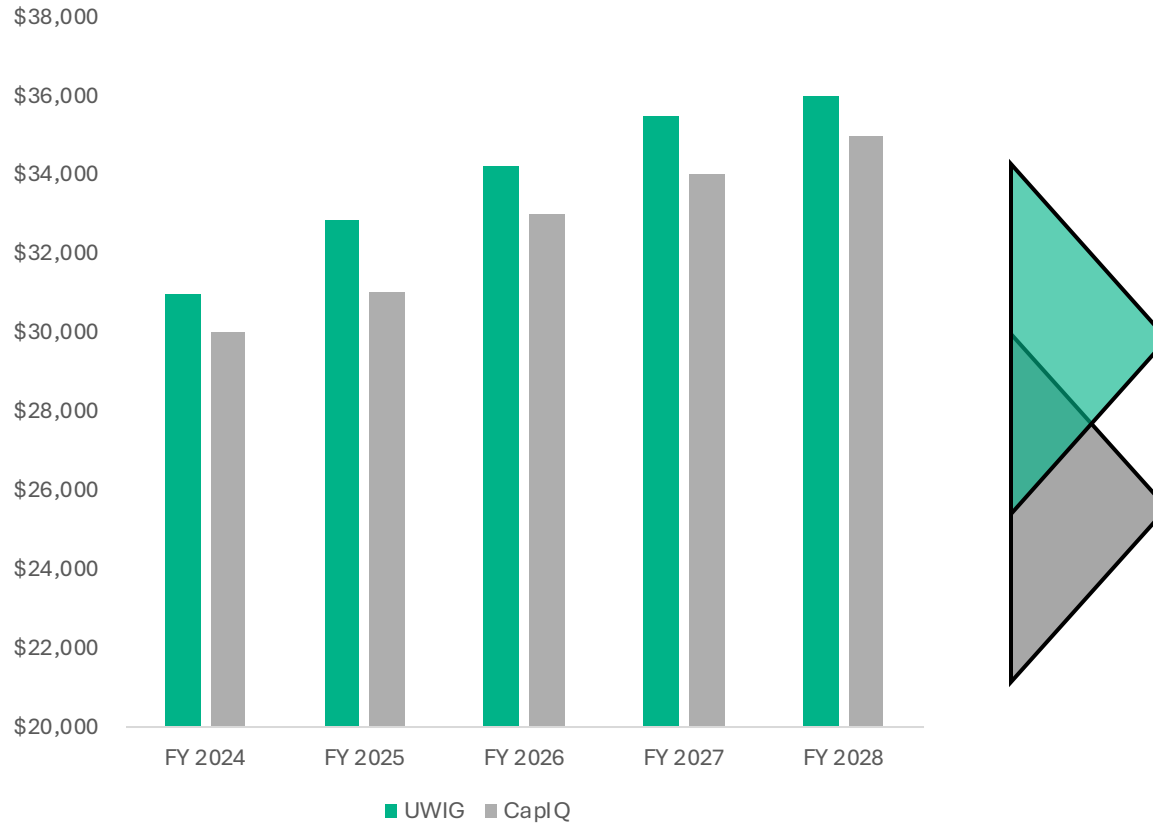
JNPR AI-Driven Enterprise



Reasons:

- Cost/Revenue Synergies
- High Margin Products
- JNPR AI Networking

Valuation Revenue Comparison



Differences

- Juniper Acquisition Synergies
- High Growth Segments

Current Share Price
\$ 17.64

Gordon Growth	Bear	Base	Bull
Share Price	\$20.21	\$23.28	\$27.13
Upside	14.59%	31.95%	53.79%

Price Target
\$ 23.54

Comparable Analysis

*All Figures in USD Millions (TTM)

Company	Stock Price	Market Cap (\$B)	Net Income	EBITDA	Forward P/E	EV/EBITDA
HP INC. (XNYS:HPQ)	\$ 31.83	\$ 31,212	\$ 3,420	\$ 5,200	8.98	8.64
NETAPP, INC. (XNAS:NTAP)	\$ 112.28	\$ 23,172	\$ 940	\$ 1,440	15.97	14.85
CISCO SYSTEMS, INC. (XNAS:CSCO)	\$ 47.13	\$ 190,838	\$ 12,120	\$ 16,740	12.89	12.17
DELL TECHNOLOGIES INC. (XNYS:DELL)	\$ 145.46	\$ 103,828	\$ 3,210	\$ 8,750	19.84	14.42
Fujitsu Limited (OTCM:FJTSY)	\$ 14.89	\$ 31,268	\$ 1,761	\$ 2,471	17.57	11.45
INTERNATIONAL BUSINESS MACHINES CORPORATION (XNYS:IBM)	\$ 170.01	\$ 156,172	\$ 8,150	\$ 14,380	16.89	13.42
ORACLE CORPORATION (XNYS:ORCL)	\$ 124.51	\$ 342,217	\$ 10,640	\$ 20,800	19.76	20.04

HEWLETT PACKARD ENTERPRISE COMPANY (XNYS:HPE)	\$ 17.80	\$ 23,140	\$ 1,911,000	\$ 4,926,000	9.41	6.55
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Mean					15.99	13.57
Median					16.89	13.42
25th Percentile					14.43	11.81
75th Percentile					18.665	14.635

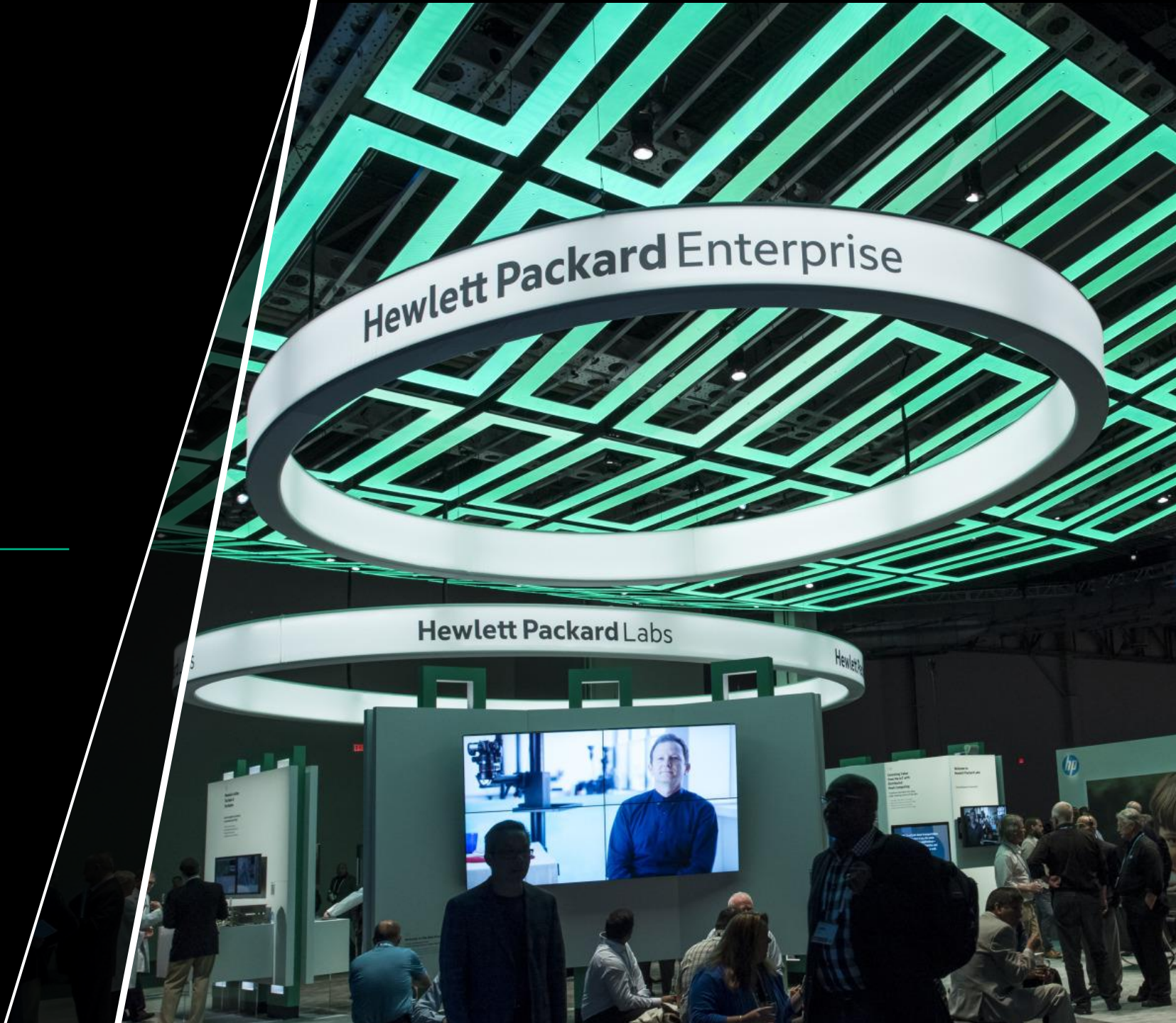
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FORTINET, INC. (XNAS:FTNT)	\$ 62.34	\$ 47,624	\$ 1,199,400	\$ 1,392,300	34.84	29.47
A10 NETWORKS, INC. (XNYS:ATEN)	\$ 16.45	\$ 1,205	\$ 45,738	\$ 54,170	19.61	20.71
PALO ALTO NETWORKS, INC. (XNAS:PANW)	\$ 323.77	\$ 104,610	\$ 876,389	\$ 2,837,581	51.28	87.96
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ARISTA NETWORKS, INC. (XNYS:ANET)	\$ 319.47	\$ 100,110	\$ 2,290	\$ 2,500	40.49	38.36

JUNIPER NETWORKS, INC. (XNYS:JNPR)	\$ 34.64	\$ 11,258	\$ 224	\$ 661	16.21	24.31
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Mean					27.98	30.93
Median					19.84	20.71
25th Percentile					18.25	13.92
75th Percentile					37.665	33.915

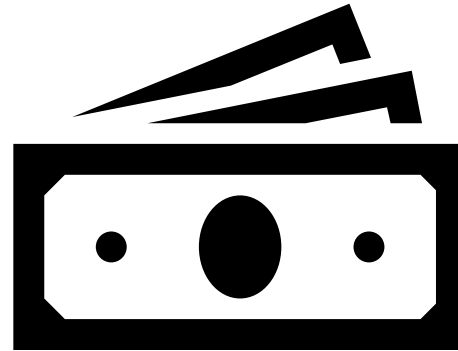
Catalysts

Potential Considerations

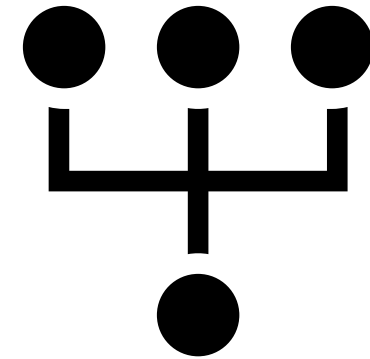




Synergy realization in
Earnings Report



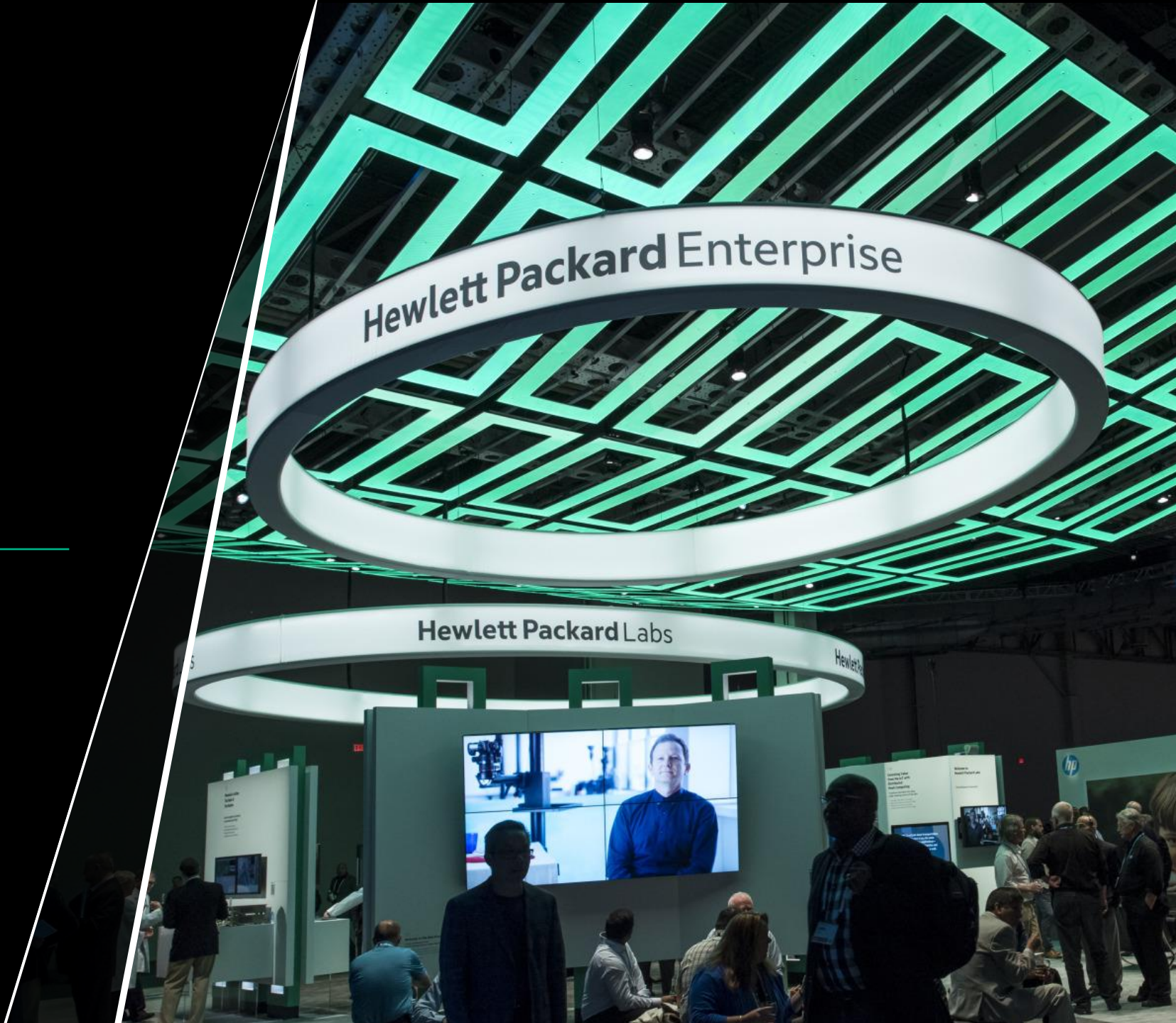
Cost Cutting Restructuring from
Juniper Acquisition



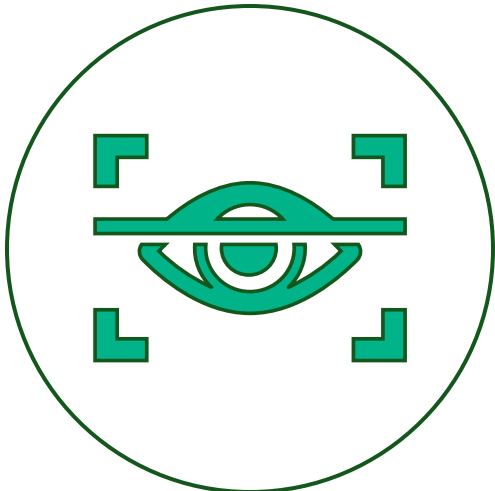
Market values HPE in the right
Industry

Risks & Mitigations

Potential Considerations




1



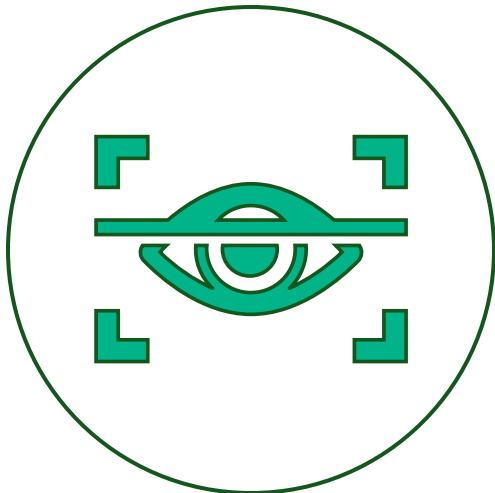
Cybersecurity
Threats

2



High Debt/Equity
Ratio

1



**Cybersecurity
Threats**

Risk:

As data and workloads move towards the cloud, the attack surface for **cybersecurity threats** has expanded significantly. Furthermore, the rise of AI technologies has **lowered the barrier** for cybercriminals to launch sophisticated attacks and has increased the scope and potential impact of such threats.

Mitigation:

On top of HPE's multi-layered cybersecurity capabilities, the upcoming acquisition of **Juniper Networks** will further enhance HPE's cybersecurity offerings. Juniper is a leader in AI-driven networking with the ability to integrate intelligent, **automated security** into cloud-based solutions. This collaboration will be able to provide a more comprehensive **Secure Access Service Edge (SASE)** solution to protect customers from evolving cyber threats.



Risk:

HPE has a relatively **high debt-to-equity ratio of 0.60**, compared to the industry average of around 0.5023. This higher leverage exposes the company to certain risks, as a significant portion of its growth is being financed through borrowing. Specifically, HPE has over \$20 billion in liabilities due within 2024, which is potentially concerning given it only has around \$4 billion in cash.

Mitigation:

HPE's net debt-to-EBITDA ratio of 1.7x is closer to the industry average, and its **interest coverage ratio of 15.29x** is very strong. This suggests that HPE's debt burden is manageable, and its cash flow can adequately service the interest payments. Additionally, the company has reduced its debt-to-equity ratio from **68.4% to 60.1%** over the past 5 years, indicating progress in deleveraging.

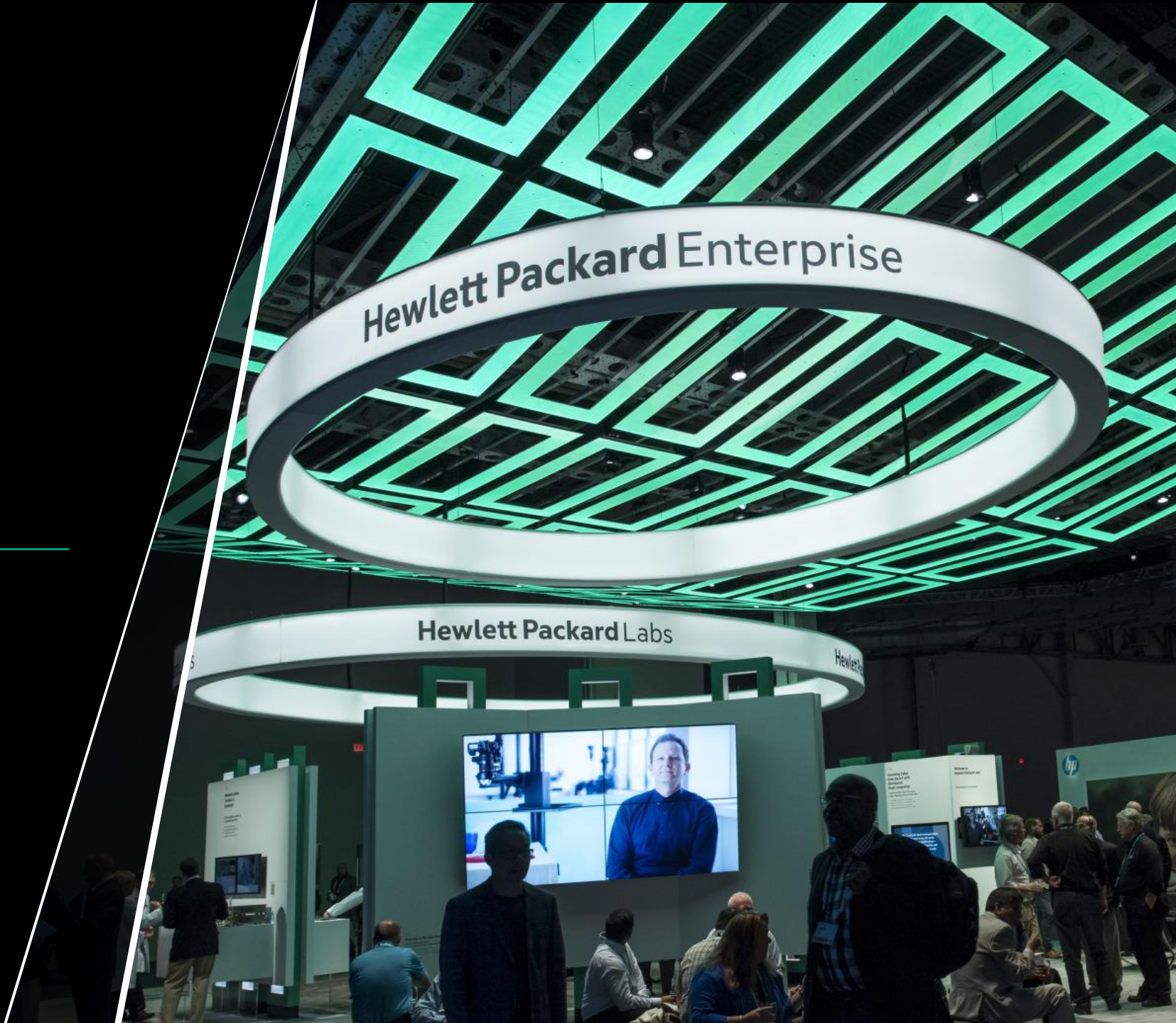
2



High Debt/Equity
Ratio

Conclusion

Final Recommendation



***HPE's** strong market positioning and dedication to technological development place it at the forefront of recent and future edge computing trends.*

- I Unrealized Server & Edge-to-Cloud Specialty
- II Commitment to R&D of New Tech
- III Shift to High Margin Products



Return:

With a target price of **\$23.54** per share and an investment horizon of **12-18** months, HPE gives an **33.47%** upside.