

Action Summary – 23 December 2024

Analyst Theodore R. O'Neill is *initiating coverage of Actelis Networks Inc. with a Buy rating and \$5PT*

Leading innovator/enabler in Networking and Security. Actelis Networks, Inc. is a market leader in cyber-hardened, rapid deployment networking solutions for IoT and broadband applications. Its products play a significant role in critical infrastructure modernization across the U.S. and globally. We believe Actelis' solutions offer significant competitive advantages in performance and security in fiber, COAX and copper connected devices. In a world that is connected to billions of devices with a mix of fiber COAX and copper connections, Actelis' strengths are in providing high levels of security and integration that is agnostic to the construction of the network itself.

Blue chip customer list. The company has a blue-chip list of customers serving Smart infrastructure initiatives as well as governments, military and police in dozens of countries around the world.

Well protected moat. The company has a well-protected technology moat that includes both patented technology and technical trade secrets. According to our search of the USPTO, the company has 31 US granted patents.

Technology that emphasizes performance and value. With technological solutions that makes all types of media perform as if it were secure, high-speed fiber, it alleviates the need and the expense to rip out the old media and start over.

Growth strategy. The company enacted a strategic shift in its focus in 2023 that de-emphasized legacy telco customers and focused instead on end customers such as industrial and government entities. The change, as reflected in the company's financials, has been a success with it recording triple-digit revenue growth in the most recent quarter YoY.

Shares are priced significantly below absolute and comparative metrics. The shares are selling at a discount to both our discounted price target model and its peers. While our target price of \$5 is derived from our discounted earnings model, were it to trade at the at the simple average of its peers at 4.3X 2025 Market cap/sales, the share price would exceed \$8.00

12/20 Closing price: \$1.03	Market cap: \$6.4 million	2025 Market cap/sales: 0.53	2026 EV/Sales: 0.43
Shares outstanding: 6.3 million	Insider ownership: ~13%	Avg. trading volume: <10,000	Dividend/Yield: NA/NA

GAAP estimates (EPS in dollars – Revenue in \$000)

Period	EPS	Revenue	Op. Margin
2023A	<u>(\$2.61)</u>	<u>\$5,606</u>	<u>NME</u>
1Q24A	(\$0.50)	\$726	
2Q24A	(\$0.02)	\$3,431	
3Q24A	(\$0.08)	\$2,541	
4Q24E	<u>(\$0.02)</u>	<u>\$3,000</u>	
FY24E	<u>(\$0.53)</u>	<u>\$9,698</u>	<u>(24.9%)</u>
1Q25E	(\$0.07)	\$2,500	
2Q25E	(\$0.02)	\$3,000	
3Q25E	(\$0.01)	\$3,300	
4Q25E	<u>\$0.01</u>	<u>\$3,400</u>	
FY25E	<u>(\$0.09)</u>	<u>\$12,200</u>	<u>(4.5%)</u>

Note: Numbers may not add due to rounding or changing share count. See our full model in the back of this report.

Cash balance (\$000)

• 2022A	• \$6,016
• 2023A	• \$2,572
• 2024E	• \$2,517
• 2025E	• \$2,848

Short term debt (\$000)

• 2022A	• \$553
• 2023A	• \$1,335
• 2024E	• \$1,000
• 2025E	• \$1,000

Risks/Valuation

- Risks include competition, history of losses, industry regulatory actions and changes in technology
- Our \$5.00 target is derived using a discounted future earnings model

Company description: Actelis Networks, Inc. is a market innovator in hybrid fiber-copper, cyber-hardened networking solutions for rapid deployment in wide-area IoT applications, including government, ITS, military, utility, rail, telecom, and campus networks. Actelis' innovative portfolio offers fiber-grade performance with the flexibility and cost-efficiency of hybrid fiber-copper networks. Through its "Cyber Aware Networking" initiative, Actelis also provides AI-based cyber monitoring and protection for all edge devices, enhancing network security and resilience.

Figure 1 – Actelis Networks – One-year trading snapshot



Source: FactSet

Investment Thesis

Leading innovator/enabler in Networking and Security. Actelis Networks, Inc. is a market leader in cyber-hardened, rapid deployment networking solutions for IoT and broadband applications. Its products play a significant role in critical infrastructure modernization across the U.S. and globally. We believe Actelis' solutions offer significant competitive advantages in performance and security in fiber, COAX and copper connected devices. In a world that is connected to billions of devices with a mix of fiber COAX and copper connections, Actelis' strengths are in providing high levels of security and integration that is agnostic to the construction of the network itself. For example, this month, Actelis was chosen by Seattle to power essential traffic management applications, including signals, cameras, congestion monitoring systems, and dynamic messaging signs. As you can imagine, this is a hodge-podge devices and networks built over decades that will now be fully integrated.

Blue chip customer list. The company has a blue-chip list of customers serving Smart Transportation, Smart Transportation, Smart City, Smart Grid, Smart Campus initiatives as well as governments, military and police in dozens of countries around the world.

Well protected moat. The company has a well protected technology moat that includes both patented technology and technical trade secrets that it has not revealed in public filings so it can retain the IP. According to our search of the USPTO, the company has 31 US granted patents.

Technology that emphasizes performance and value. With technological solutions that makes all types of media perform as if it were secure, high-speed fiber, it alleviates the need and the expense to rip out the old media and start over. With its newly announced MetaShield, it now uses the network to protect the entire operation at the “edge.”

Growth strategy. The company enacted a strategic shift in its focus in 2023 that de-emphasized legacy telco customers and focused instead on end customers such as industrial and government entities. The change, as reflected in the company’s financials, has been a success with it recording triple-digit revenue growth in the most recent quarter YoY. We are forecasting double digit annual growth for both 2024 and 2025.

Shares are priced significantly below absolute and comparative metrics. The shares are selling at a discount to both our discounted price target model and its peers. While our target price of \$5 is derived from our discounted earnings model, were it to trade at the at the simple average of its peers at 4.3X 2025 Market cap/sales, the share price would exceed \$8.00

Valuation Methodology

We believe ASNS is undervalued, and we support that belief with a series of valuation techniques. We use two different techniques, below. To determine our price target, we use a discounted future earnings model, and we validate that result with a comparison to peers, i.e.:

- 1) The discounted value of all future earnings was used for our price target (see Figure 2)
- 2) Valuation relative to peers (see Figure 3)

Discounted Future Earnings – Basis for Price Target

Our 12-month price target of \$5.00 is based on a discounted earnings model. For valuation purposes, we sum up all future earnings discounted at 8%. We assume approximately 30%-50% EPS near-term growth for earnings which steps down to GDP after 5-7 years. Our valuation model is shown in Exhibit 2 below. Note, this model understates future new products and growth through acquisitions and probably understates the tax benefits, but offsetting that, the earnings never have a down year. The implied share price is \$4.78, which we round to \$5.00. Although this target is substantially above where the stock is currently, were it to trade at the at the simple average of its peers at 4.3X 2025 Market cap/sales, the share price would exceed \$8.00.

Figure 2 – Actelis Networks – Price Target Calculation

Discounted future earnings: \$4.78		
YEAR	EPS	Discounted EPS
2025	(\$0.09)	(\$0.09)
2026	(\$0.01)	(\$0.01)
2027	\$0.10	\$0.09
2028	\$0.15	\$0.12
2029	\$0.20	\$0.15
Terminal Value		\$4.53

Source: Litchfield Hills Research LLC

Valuation Relative to Peers

If we compare ASNS to the simple average of its peers, the shares sell at a discount on sales measures ranging from 88% to 90% (see Figure 3). Were the shares to trade simply to the average of its peers, (and we would argue that due to its growth potential, it should trade above average), it would exceed our price target. Details on each of the peers can be found in Figure 7 near the back of the report. The companies we used in Figure 7 are in similar lines of business although none of them are a perfect match.

Figure 3 – Actelis Networks – Discount to Peers

	2025 Market Cap / Sales	2025 EV / Sales
Average	4.26	4.40
ASNS (based on 2026 revenue)	0.53	0.43
Discount to peers	88%	90%

Source: Litchfield Hills Research LLC and FactSet

Guidance and Financial Forecasts

The company provides no guidance. Our forecast assumes that the company reaches sustainable B/E in 4Q25 or 1H26 and can do so at approximately ~\$3.4MM/quarter of revenue. We do not need to make more aggressive assumptions to justify our assertion that the shares are undervalued. In addition, if our forecast is correct, we do not see a near-term need for capital if nothing else changes. We would expect a capital raise in the future if the company needs it to support significantly greater growth than is in our forecasts.

Company Overview

Summary

Founded in 1998 and headquartered in Fremont, California, Actelis Networks, Inc. (NASDAQ: ASNS) is a leader in cyber-hardened, rapid-deployment networking solutions for wide-area IoT applications including federal, state and local government, intelligent traffic systems, military, utility, rail, telecom and campus applications. The company provides optimized networking solutions for real-life hybrid networks, which include a mix of new fiber optic infrastructure, as well as legacy copper and coax conduits. Utilizing any mix of available wireline infrastructure, Actelis' solutions instantly deliver to network users a cyber-hardened, fiber-grade experience, saving the time and money involved in getting the physical fiber to where it is not available. Actelis' portfolio includes environmentally hardened aggregation switches, density high-density ethernet devices, advanced management software and cyber-protection capabilities., uniquely built to support any available infrastructure with no changes required to deliver fiber-grade services.

Using these capabilities, Actelis delivers high-speed, secure connectivity over both new and existing infrastructure, providing cost-effective, fast-deployment solutions. The company's patent-protected technologies enable multi-gigabit speeds and cyber resilience, distinguishing it in the networking market.

Actelis serves a wide range of sectors, including smart city projects, transportation, military, and utility infrastructure, helping organizations modernize and secure their communications while leveraging existing infrastructure. With recent DoD cybersecurity certifications and a presence in the U.S. Department of Defense Information Network's approved product list, Actelis continues to expand its footprint globally, including deployments across military bases, transportation networks, and industrial IoT environments.

In 2024, the company introduced its unique "Cyber-Aware Networking SaaS Software Service", providing its networking solutions with the ability not only to cyber-harden Actelis' network, but also with the unique capability to use the network at the edge as the platform to sense, monitor and protect IoT sensors and cameras that make up the operators' IoT network.

Lastly, also in 2024, addressing the market challenge of bridging the gap between fiber in the street to connecting households in MDUs, the company introduced its ultra-low-power solution to drive gigabit data services from fiber in the street to apartments, instantly and very cost-effectively, utilizing existing wires or coax cables in the building, and without the need to replace the wires and install new fiber in each MDU building.

The company serves more than 300 customers (such as cities, utilities, carriers, etc.) in over 30 countries and has 30+ global patents. It has demonstrated improving financials and cash flow from operations (see Figure 4).

Figure 4- Actelis Networks, Inc. – Key Financial Data – 2022, 2023 and 9M 2024

Key Financial Data (USD\$ MM)	2022	2023	9M 2024
Revenues	8.8	5.6	6.7
Cost of Revenues	4.7	3.7	2.8
Operating income (loss)	(6.1)	(7.4)	(2.1)
Net Income/(Loss)	(10.9)	(6.3)	(2.6)
Cash and cash equivalents	3.9	0.6	2.2
Trade and other payables	1.8	1.8	0.9
Total Equity	3.3	0.2	2.8
Net Cash from Operations	(7.8)	(6.6)	(4.8)

Source: Litchfield Hills Research; Company press releases, Annual Report 2024 and Sep 2024

Key Solutions Offered

Actelis Networks provides cutting-edge hybrid fiber-copper networking solutions, enabling organizations to upgrade their infrastructure for high-speed, secure IoT and mission-critical applications. These solutions are designed to instantly deliver fiber-grade connectivity over legacy copper and coax lines, without extensive infrastructure upgrades. Actelis supports a broad range of services including smart city initiatives,

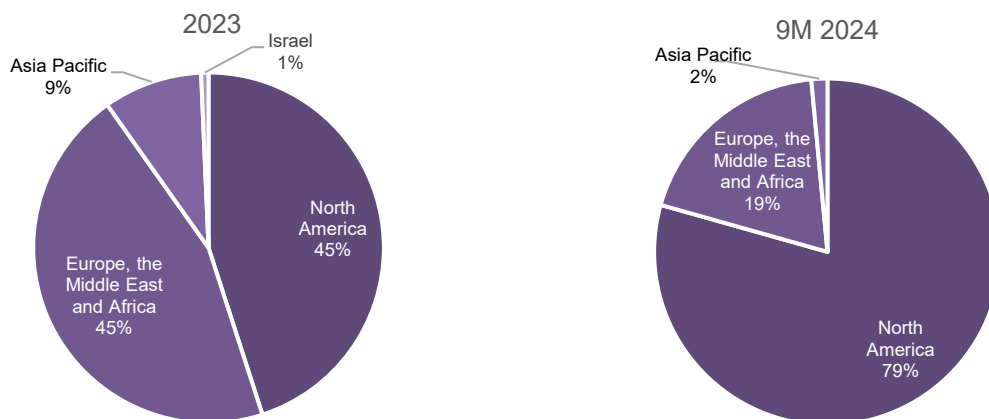
transportation systems, military communications, utilities, industrial IoT, public safety and MDU broadband with municipalities and carriers.

The company's portfolio includes a range of cyber-hardened products like the MetaLIGHT and the newer GigaLine series, hybrid fiber-copper networking devices that leverage patented signal processing and advanced network engineering techniques to dramatically enhance the performance of copper and coax utilizing commercially available technologies such as G.hn, G.fast, and others to reach up to Multi-gigabit speeds and distances up to 100KM. . Actelis' solutions are distinguished by their ability to extend connectivity over long distances and challenging environments, making them ideal for areas where traditional fiber deployment is impractical, cost-prohibitive, or too slow to wait.

Actelis serves diverse verticals including municipalities, transportation authorities, defense organizations, utility companies, and smart city planners. Their hybrid networking solutions facilitate the rapid deployment of high-speed, reliable networks that integrate seamlessly with existing infrastructure, offering robust security and scalability. These technologies support various critical communication standards and protocols, enabling seamless integration with Ethernet-based networks and IoT platforms.

In addition to its technological offerings, Actelis provides comprehensive maintenance. The company's solutions are designed for rapid deployment, making them suitable for large-scale projects and enabling organizations to quickly realize the benefits of enhanced connectivity.

Figure 5 - Actelis Networks, Inc. – Revenue by Geography



Source: Litchfield Hills Research; Company press releases, Annual Report 2024 and Sep 2024

Actelis' flagship Triple Shield technology enhances connectivity by optimizing signal processing, eliminating interference, and enabling 256-bit encryption for data protection across fiber and copper networks.

Key Product Families:

- **GigaLine Series (GL800, GL5000, GL6000):** These switches support hybrid-fiber-copper networks for up to 10 Gbps speeds, providing advanced, cyber-hardened solutions for instant deployment, no infrastructure work needed, for various applications, including IoT installations, MDUs (multi-dwelling units), campuses, and 4G/5G base stations.
- **MetaLIGHT Series (ML500/600/700):** Compact Ethernet Access Devices (EADs) designed for rugged environments, ideal for connecting IoT devices like traffic lights and cameras to control centers over long distance hybrid-fiber networks.

- **ML2300 Aggregator Series:** Aggregation devices designed for large-scale control centers, enabling secure connection and management of hundreds of IoT devices across extensive networks, such as highway systems.
- **XR239 Series:** Long-distance copper line repeaters, optimized for extreme weather conditions, extend network reach up to 100 km with minimal interference.
- **GL900 Series:** Ultra-low power hub delivering symmetrical gigabit services to households in MDUs, from the Fiber in the street or the radio on the roof – over existing wires or coax cables in buildings.
- **EMS Software:** A robust network management solution that enables remote monitoring, configuration, and security management for networks comprising thousands of elements.
- **MetaShield:** MetaShield is an AI based SaaS service, designed to address the growing need for proactive, integrated, cybersecurity and operational continuity management solutions within IoT and critical infrastructure networks. By applying advanced threat detection and response capabilities directly into the company's hybrid-fiber networking products, MetaShield offers deep continuous monitoring and real-time protection.

Figure 6 - Actelis Networks, Inc. – Select Client List



Source: Litchfield Hills Research; Investor Presentation - Sep 2024

Competition

The company offers competitive products and focuses on the following categories: A unique solution for real-networks that include multiple types of media, the performance and reliability of solutions over any wireline (nc wireless) medium, rapid deployment/implementation, cost of deployment and return on investment in terms cost savings, sophistication, novel and innovative intellectual property and technology, functionality of offering cross-platform operability, security, ease of implementation and use of service, management capabilities, hig

quality customer support, and price. The company's key competitors include Moxa Technologies, FlexD: Telecommunications AG, EtherWAN Systems (fiber only), Inc. and Belden Inc.

We believe Actelis has competitive advantages over its peers:

Proven Expertise & Innovation: Over a decade of investment in copper and hybrid-fiber technologies has enabled the development of high-speed, reliable communication solutions across mixed media networks.

Unique Hybrid-Fiber Solutions: Seamless integration of copper, coax, and fiber networks supports speeds from 10 Mbps to 10 Gbps with a reach of up to 100 km, even under harsh environmental conditions, ensuring Gigabit-grade service reliability.

Advanced Network Cybersecurity: Triple Shield Protection includes multi-line scrambling, 256-bit encryption, and system-wide protection. Additionally, military-grade FIPS-certified protection safeguards data against threats,

Unique Cyber Aware Networking, MetaShield: With its newly announced MetaShield, it now uses the network to protect the entire operation at the "edge." An AI based vulnerability monitoring and response, operating at network edges, provides protection from the network for the customer's IoT operation.

Cost-Effective & Rapid Deployment: With technological solutions that makes all types of media perform as if it were secure, high-speed fiber, it alleviates the need and the expense to rip out the old media and start over. This significantly lowers costs and preserves the value of the existing infrastructure. Solutions enable installations within hours rather than weeks. Automated tools further simplify deployment and management, cutting down on operational expenses.

Versatile & Feature-Dense Products: Designed to replace multiple market alternatives, products offer advanced switching, IoT device compatibility, power feeding through data cables, and precise synchronization, catering to various network topologies and applications.

Established Market Presence: Trusted by municipalities, railways, airports, utilities, government, and military organizations worldwide. Strong relationships with tens of non-exclusive distributors and system integrators across the U.S., Europe, and Asia create significant market reach and customer loyalty.

Strong Reputation & Customer Loyalty: Long-standing relationships with hundreds of network operators and thousands of end-users highlight the company's reliability and high-performance products, creating a substantial entry barrier for new competitors.

Key Developments

- On November 25, 2024, Actelis secured additional orders from the Washington DC Department of Transportation ("DDOT"). These new orders build upon the USD\$ 2.3MM order announced in May 2024, which was instrumental in modernizing and streamlining DDOT's network connectivity infrastructure across its roadways and intersections.
- On November 6, 2025, the company presented its GigaLine 900 (GL900) broadband solution at several prominent industry events, including WISPAPALOOZA, Broadband Communities West Summit, Connected Britain, and Connected Germany. The solution received significant attention from providers, integrators, and building owners, underlining the GL900's potential as a cost-efficient, ultra-low power solution offering symmetrical Gigabit services within multi-dwelling units without the need to install new wires or fiber in walls, thanks to its innovative sub-5W power consumption.
- On August 19, 2024, Actelis revealed a strategic partnership with a leading cybersecurity provider to develop and launch an AI-powered SaaS offering as part of the company's 'Cyber Aware Networking' initiative. This software, integrated into Actelis' networking devices, utilizes the network's infrastructure and proximity to IoT devices to secure and protect physical assets such as cameras and sensors at the edge, enabling proactive measures before issues affect the entire network.
- On August 2, 2024, Actelis received orders to supply two major utility providers in Germany with its secure, hybrid-fiber networking solution. The first order was from a large regional water supplier handling the

treatment and secure distribution of drinking water, and the second was from a significant natural gas provider with an extensive network. Actelis will provide its MetaLIGHT 684D solution, ensuring fiber-grade, secure connectivity for mission-critical IoT applications.

- On December 17, 2023, Actelis entered into binding agreements to issue 1,271,187 common shares at a price of USD\$ 1.18 per share, raising gross proceeds of USD\$ 1.5MM. The company will also issue warrants to purchase up to 1,271,187 shares at an exercise price of USD\$ 1.18 per share.

Strategy Outlook

Actelis' growth strategy focuses on global expansion by leveraging over two decades of brand recognition and a presence in 30+ countries to dominate IoT verticals worldwide. The company is expanding their network of global partners, including system integrators, VARs, and consultants, to enhance its market reach. By investing in sales and marketing teams, it aims to secure more multi-year contracts in sectors like ITS, military, and transportation, ensuring long-term revenue. The company is positioning itself as a leader in cyber-safe IoT solutions through advanced encryption and Cyber-Aware Networking, creating new recurring revenue streams. Additionally, it is driving rapid, cost-effective 5G deployment by solving connectivity and power challenges for millions of base stations. Actelis' edge computing capabilities will integrate applications like video analytics and cybersecurity into IoT infrastructure, enabling new revenue models. The company is poised to capitalize on the USD\$ 1.2T U.S. Bipartisan Infrastructure Law, targeting broadband and communication upgrades. Finally, strategic M&A remains a key growth lever, allowing the company to fill business gaps, enhance offerings, and accelerate market entry while maximizing investor returns through resource optimization.

The company's strategy outlines a multi-year solution plan focusing on advancing IoT networking through incremental technological developments. Its key aspects include:

Foundation (2020-2021):

- Establishing IoT hybrid building blocks for sectors like traffic, utilities, city infrastructure, rail, federal, and military.
- Introducing 256-bit encrypted, cyber-safe hybrid IoT solutions, emphasizing secure connectivity.

Mid-Term Expansion (2022-2023):

- Enabling high-speed connectivity (up to 10 Gbps) for buildings, campuses, and 5G infrastructure.
- Enhancing advanced cyber protection for applications and users, focusing on safeguarding data flow and applications.

Long-Term Vision (2024 and beyond):

- Incorporating comprehensive cyber monitoring and response leveraging AI and edge computing for video and data processing to enhance real-time data handling at the network edge. Transitioning into advanced edge applications, aligning with the evolving IoT landscape.
- Expanding into military and federal applications leveraging the company's DoD FIPS cyber certification.

The strategy emphasizes:

- Ubiquity and Gigabit Speeds: Meeting diverse IoT needs while expanding reach to gigabit speeds.
- Cyber-Aware Networking: Ensuring security becomes integral across all network layers.
- Any Media Connectivity: Flexibility to adapt to different network infrastructures.

Industry Overview

Internet of Things

According to the company's Q3 2024 investor presentation and Grand View Research, the global IoT market is projected to reach USD\$ 1.8T by 2028, growing at a compound annual growth rate (CAGR) of 24.5%, driven by its widespread adoption across various industries. The Smart City sector alone is expected to reach USD\$696B by 2028, with a notable CAGR of 29.3%. IoT applications span across sectors including Smart Traffic, which involves technologies like lane management, vehicle-to-vehicle (V2V) communication, and intelligent lighting systems. Smart Rail systems leverage IoT for signalling, obstacle detection, and security, enhancing operational efficiency.

Military and government sectors utilize IoT for perimeter security, energy management, and weapons control, while the Power, Water, and Oil industries benefit from IoT solutions for substation management, oil flow monitoring, and water plant automation. Industry and education sectors are also leveraging IoT for robotics, warehouse management, and security access control, streamlining operations and enhancing safety. This growth across diverse sectors underscores IoT's transformative impact, offering scalable, secure solutions that meet the evolving needs of modern infrastructure. The rapid expansion of IoT in both urban and industrial contexts signals a future of interconnected, efficient, and smart environments.

Benefits of IoT

IoT offers a wide range of benefits across industries by enabling real-time data collection, connectivity, and automation.

- **Enhanced Efficiency and Automation:** IoT streamlines processes by enabling devices to communicate and perform tasks autonomously, reducing human intervention and errors. Smart factories and automated logistics systems optimize production, supply chain, and delivery operations.
- **Cost Savings:** Predictive maintenance enabled by IoT reduces downtime and repair costs by detecting issues before they escalate. Energy-efficient solutions, such as smart grids and automated lighting, help lower utility costs.
- **Improved Decision-Making:** IoT devices provide real-time data analytics, enabling businesses to make data-driven decisions quickly. Insights from connected devices enhance operational strategies and customer experiences.
- **Increased Safety and Security:** IoT supports advanced security systems like surveillance cameras, biometric access, and perimeter detection. In critical industries, IoT sensors monitor hazardous environments, reducing risks to human safety.
- **Better Customer Experience:** Personalized services, like smart home devices or IoT-enabled healthcare wearables, cater to individual preferences and needs. Retail IoT solutions offer personalized shopping experiences and efficient inventory management.
- **Sustainable Solutions:** IoT contributes to environmental sustainability through smart energy management, waste reduction, and efficient resource usage in cities and industries.

These advantages position IoT as a transformative force across healthcare, transportation, manufacturing, and urban development sectors.

Market Growth Factors

The rapid growth of the Internet of Things (IoT) market is driven by various global trends, primarily urbanization and the rising adoption of smart technologies across sectors. As populations increase and urbanize, countries are embracing smart city initiatives to optimize resource usage and enhance infrastructure. Connected devices such as sensors, smart meters, and smart lighting systems are pivotal in improving the efficiency and functionality of urban environments. For instance, the World Economic Forum highlights that 1.3MM people

move to cities each week, with 65% of the global population expected to reside in urban areas by 2040. This urban shift fuels the adoption of IoT devices in smart homes, buildings, and infrastructure, particularly under the Industry 4.0 and smart manufacturing revolutions.

According to Fortune Business Insights, the demand for IoT devices in households is also surging. In 2022, 131.4MM households used smart speakers, a figure projected to reach 335.3MM by 2027. Similarly, the adoption of smart appliances is expected to grow from 73.1MM households in 2022 to 177.6MM by 2027. Beyond homes, smart city solutions ranging from smart grids and transportation to waste management and air quality control are driving the global proliferation of connected devices. IoT's vast applications, from biometric data collection via wearables to equipment monitoring through cloud platforms, enhance efficiency across industries.

These markets and applications are expected to contribute synergistically to the introduction of AI into edge applications and to experience increased demand as AI requires more broadband everywhere.

However, this rapid expansion also presents challenges. The growing network of connected devices heightens concerns over data security and privacy. As these devices often handle sensitive personal information, the risk of data misuse and breaches increases, potentially hampering market growth. Addressing these vulnerabilities is crucial to sustaining the IoT market's momentum, as security concerns could deter consumers and businesses from fully embracing connected technologies.

Market Segmentation

The market can be divided into different segments:

By Component Analysis

The market is divided into platforms and solutions & services.

Platforms are further segmented into network management, cloud platform, and device management.

Solutions & services include real-time streaming analytics, security, data management, remote monitoring, and network bandwidth management.

The platform segment is expected to record the highest CAGR due to the growing demand for efficient data servers and enterprise connectivity solutions. Many market players are enhancing IoT platforms by integrating them with emerging technologies. For example, in June 2023, Ayla partnered with Etisalat to offer a smart home IoT platform, showcasing UAE's telecom advancements.

Network management is projected to hold a significant market share due to the increasing demand for remote monitoring systems and internet-ready devices that integrate seamlessly across various hardware models.

Solutions & services are expected to dominate the market as industries increasingly adopt intelligent solutions, particularly in healthcare, where connected devices improve medical outcomes.

By Deployment Analysis

The market is segmented into cloud and on-premises deployment models.

Cloud deployment of IoT devices continues to evolve, driven by trends that shape how organizations leverage IoT in combination with cloud computing.

A significant trend is the integration of edge computing with cloud deployments, enabling faster data processing and reducing latency. Cloud platforms also provide advanced AI and machine learning capabilities that enhance IoT deployments, allowing organizations to derive actionable insights from IoT data. These capabilities enable predictive maintenance, anomaly detection, and the optimization of IoT systems, which improves decision-making and fosters innovation.

Despite the growing momentum of cloud deployments, on-premises solutions remain relevant, particularly for organizations with stringent data privacy requirements, latency-sensitive applications, or limited cloud connectivity.

On-premises infrastructure allows organizations to address unique needs such as data sovereignty, compliance, and low-latency operations, making it a viable option for businesses seeking enhanced control over their IoT environments. By leveraging on-premises deployments, organizations can unlock the full potential of IoT, improving operational efficiency and driving business innovation while maintaining strict control over their data.

By Enterprise Type Analysis

The market is divided into large enterprises and SMEs based on enterprise type.

The adoption of IoT technology varies between large enterprises and SMEs due to differences in resources, organizational priorities, and structures.

Large enterprises held the largest market share in 2023, primarily due to their ability to implement comprehensive, end-to-end IoT solutions. These organizations often integrate IoT data with existing enterprise systems such as ERP (Enterprise Resource Planning) and CRM (Customer Relationship Management) to derive actionable insights and improve decision-making processes.

SMEs are expected to grow at the highest CAGR during the forecast period, driven by their need for cost-effective, easy-to-deploy IoT solutions. SMEs typically begin with basic IoT applications like remote equipment monitoring, inventory management, and environmental monitoring to address immediate operational needs.

While both large enterprises and SMEs adopt IoT technology, their approaches differ. Large enterprises focus on comprehensive, customized IoT solutions that integrate seamlessly with their existing infrastructure. In contrast, SMEs prioritize affordable, easy-to-implement IoT solutions tailored to their specific business requirements, allowing them to enhance customer experiences and improve operational efficiency.

These differing adoption trends provide diverse growth opportunities across both large-scale enterprises and SMEs, each addressing IoT integration based on their scale, budget, and industry focus.

By Industry Analysis

The market is segmented into agriculture, BFSI, healthcare, government, retail, manufacturing, sustainable energy, transportation, IT & telecom, and others.

The agriculture industry is expected to grow due to the rising demand for IoT-enabled field equipment and sensors.

Key IoT applications in agriculture include smart greenhouses, precision farming, smart drones, and smart irrigation systems, which help reduce costs, increase yields, and enhance farmers' decision-making through accurate data.

The adoption of IoT in agriculture presents significant opportunities for market growth. For example, in January 2024, Morse Micro and Zetifi collaborated at CES 2024 to introduce enhanced rural connectivity solutions for smart IoT farming, improving access to cellular, radio, and satellite networks for farmers and rural communities.

The healthcare industry is anticipated to hold the largest market share during the forecast period, driven by the adoption of Industry 4.0 technologies such as IoT, big data, and machine learning. These technologies are enabling the healthcare sector to focus on digital transformation, enhancing quality and productivity while reducing downtime and improving supply chain management.

The integration of IoT in healthcare facilitates real-time monitoring, predictive analytics, and streamlined operations, contributing to better patient outcomes and overall efficiency. As industries continue to adopt IoT solutions, agriculture and healthcare stand out as key sectors driving growth, with agriculture leading in innovation and healthcare leveraging advanced technologies for digital transformation.

Key developments in the industry

- In June 2024, Cisco Systems, Inc. introduced an Intelligent Industrial IoT Network designed to support Artificial Intelligence and Machine Learning applications. This network improves various aspects of industrial operations, including uptime, yield, security, and revenue generation.
- In April 2024, ROSHN teamed up with Cisco to explore the application of IoT technology in creating smart buildings.
- In November 2023, AWS and Siemens deepened their partnership to streamline the connection of physical devices to the cloud. As part of the expanded collaboration, AWS's IoT SiteWise Edge software can now be directly installed from Siemens' Industrial Edge Marketplace.
- In June 2023, Rockwell and PTC extended their partnership, focusing on the promotion of PTC's IoT and AR software. Rockwell Automation continues to resell PTC's ThingWorx IoT software, including the Digital Performance Management manufacturing solution, to both new and existing customers in process and discrete manufacturing sectors.
- In January 2023, PTC finalized the acquisition of ServiceMax, a leader in service management solutions. This acquisition enhances PTC's IoT capabilities by merging field service management with advanced IoT analytics and augmented reality (AR) to improve service operations and customer support.
- In January 2023, Intel launched the 13th Gen Intel Core mobile processors. Featuring a hybrid architecture, these 32 mobile processors power thin, light laptops and IoT devices across the Core P-, H-, and U-series ranges.
- In March 2023, BT Group strengthened its collaboration with Amazon Web Services to develop IoT solutions, cloud networking services, and 5G edge computing offerings for UK enterprise customers.
- In March 2023, Siemens introduced the Connect Box, an IoT solution designed for small buildings. The Connect Box provides a centralized cloud-based interface to manage key building operations without the need for additional software.
- In December 2022, Deloitte unveiled Olympus in collaboration with AWS. Olympus is a global investment fund aimed at developing industry-specific cloud solutions, incorporating advanced technologies like IoT, AI, machine learning, 5G, quantum computing, AR/VR, and cloud computing. The initiative addresses global challenges such as food waste, financial inclusion, clean energy, and more.



Actelis Networks, Inc.

NASDAQ: ASNS - Buy-US\$5.00 PT

Management

Tuvia Barlev, Chief Executive Officer, Chairman of the Board, and Secretary

Mr. Barlev has served as Chief Executive Officer and Secretary since January 2013 and as the Chairman of the Board since 2010. Previously, Mr. Barlev founded the company in 1998 and served as the Chief Executive Officer until January 2010. Mr. Barlev is a seasoned serial entrepreneur with more than 25 years of experience in high-technology leadership in military, telecommunications, e-commerce, Big Data and clean energy. Prior to joining Actelis, he was head of the R&D organization at Teledata (acquired by ADC in 1998), a global supplier of advanced digital loop carrier (DLC) equipment from 1996 to 1998. Previously, Mr. Barlev served as a senior research officer with the Israeli government, and he was also founder, Chairman/Acting CEO at companies including Superfish Inc., a leading provider of visual search technology, from 2007 to 2015; Leyden Energy, a leading supplier of breakthrough battery technology from 2010 to 2012; Adyouneed Inc., provider of advanced direct marketing services over the Web from 2006 to 2009; and SafePeak LTD., provider of hot data acceleration platform for Big Data across the cloud from 2011 to 2012. Mr. Barlev holds BSC and MSEE degrees from Tel Aviv University, both Summa Cum Laude.

Yoav Efron, Chief Financial Officer, Deputy Chief Executive Officer

Mr. Efron has served as Chief Financial Officer since January 2018. Mr. Efron is responsible for all financial aspects of the business, for strategy, as well as Information Technology and Human Resources. Prior to joining Actelis, Mr. Efron was the CFO of TriPlay Inc. and eMusic Inc., a B2C cloud media services company from 2012 to 2017. From 2010 to 2014, Mr. Efron was an entrepreneur in energy efficiency and from 1998 through 2010 worked at Avaya Inc., a Fortune 500 telecommunications company in various executive financial roles including Finance Director. Mr. Efron earned his bachelor's degree in economics and management from the Hebrew University of Jerusalem.

Figure 7 – Actelis Networks – Comp Table

FactSet Ticker	Company Name	Closing Price	Market Cap \$MM	EV \$MM	2025 Consensus Multiples			
					PE	EV /Sales	Market Cap / Sales	EV / EBITDA
CSCO-US	Cisco Systems Inc (US Listing)	\$58.52	233,071	247,939	16.02	4.46	4.16	14.58
SIEGY-US	Siemens AG (Adr 2:1)	\$98.69	157,442	204,850	16.93	2.46	1.90	13.76
HON-US	Honeywell Intl Inc	\$228.32	148,464	170,974	20.68	4.12	3.57	15.59
ANET-US	Arista Networks, Inc.	\$112.81	142,113	137,171	46.05	16.49	17.13	40.96
PANW-US	Palo Alto Networks Inc	\$186.78	122,565	130,051	58.80	14.24	13.40	70.27
FTNT-US	Fortinet Inc.	\$97.19	74,492	72,314	40.08	10.90	11.24	37.09
ERIXF-US	Telefon AB L.M.Ericsson (Class B)	\$8.00	27,025	26,450	14.54	1.12	1.15	7.07
NOKBF-US	Nokia Corp. (FI Listing)	\$4.37	24,623	19,783	13.08	0.99	1.21	7.26
CHKP-US	Check Point Software	\$188.05	20,682	19,855	18.92	7.42	7.65	19.35
AKAM-US	Akamai Technologies	\$95.89	14,405	17,645	14.45	4.20	3.39	12.79
CIEN-US	Ciena Corp.	\$87.38	12,620	13,087	36.35	2.97	2.86	27.73
JNPR-US	Juniper Networks	\$37.24	12,330	13,021	18.94	2.40	2.32	13.11
TENB-US	Tenable Holdings Inc.	\$41.05	4,932	4,753	28.83	4.80	5.03	90.51
BDC-US	Belden Inc.	\$113.74	4,588	5,749	14.87	2.10	1.67	
KTOS-US	Kratos Defense & Security Solutions Inc.	\$25.87	3,908	3,974	44.43	2.97	3.08	41.01
EXTR-US	Extreme Networks Inc	\$17.74	2,344	2,404	23.02	2.13	2.08	
CALX-US	Calix Inc.	\$35.36	2,345	2,058	51.57	2.42	2.74	36.37
MRCY-US	Mercury Systems Inc	\$39.70	2,367	2,806	NMF	3.28	2.78	67.68
HLIT-US	Harmonic Inc	\$13.32	1,552	1,656	15.34	2.24	2.13	
DGII-US	Digi International	\$30.74	1,133	1,247	16.28	2.90	2.64	
ADTN-US	ADTRAN Holdings Inc (US Listing)	\$8.19	650	1,195	43.11	1.17	0.64	
LTRX-US	Lantronix	\$3.64	140	137	12.73	1.00	1.03	
	AVERAGE				26.91	4.40	4.26	32.19
ASNS-US	Actelis Networks, Inc.	\$1.03	6	5	NA	0.43	0.53	1.75
	ASNS Discount to peers:					-90%	-88%	-95%

Source: FactSet and Litchfield Hills Research LLC

Figure 8 – Actelis Networks – Income Statement (\$000)

December ending year	2022A Year	2023A Year	2024E				2024E Year	2025E				2025E Year
			Q1A	Q2A	Q3A	Q4E		Q1E	Q2E	Q3E	Q4E	
Total revenue	\$8,831	\$5,606	\$726	\$3,431	\$2,541	\$3,000	\$9,698	\$2,500	\$3,000	\$3,300	\$3,400	\$12,200
<i>Growth</i>		-37%	-61%	81%	201%	195%	73%	244%	-13%	30%	13%	26%
Cost of Goods	4,721	3,706	506	1,488	798	1,050	3,842	875	1,050	1,155	1,190	4,270
Gross Profit	4,110	1,900	220	1,943	1,743	1,950	5,856	1,625	1,950	2,145	2,210	7,930
Gross Margin	46.5%	33.9%	30.3%	56.6%	68.6%	65.0%	60.4%	65.0%	65.0%	65.0%	65.0%	65.0%
R&D	\$2,766	\$2,702	\$647	\$603	\$543	\$550	\$2,343	\$575	\$575	\$575	\$600	\$2,325
% of total revenue	31.3%	48.2%	89.1%	17.6%	21.4%	18.3%	24.2%	23.0%	19.2%	17.4%	17.6%	19.1%
Sales and Marketing	3,282	3,030	627	647	727	725	2,726	700	700	800	700	2,900
General and administrative	4,163	3,531	817	790	790	800	3,197	800	800	800	850	3,250
Total Operating Expenses	10,211	9,263	2,092	2,040	2,060	2,075	8,266	2,075	2,075	2,175	2,150	8,475
Operating Income	(6,101)	(7,363)	(1,872)	(97)	(317)	(125)	(2,410)	(450)	(125)	(30)	60	(545)
Operating Margin	-69.1%	-131.4%	-257.8%	-2.8%	-12.5%	-4.2%	-24.9%	-18.0%	-4.2%	-0.9%	1.8%	-4.5%
Total Other Items	(4,881)	1,077	(115)	19	(194)	(10)	(300)	(10)	(10)	(10)	(10)	(40)
Pre-Tax Income	(10,982)	(6,286)	(1,987)	(78)	(511)	(135)	(2,710)	(460)	(135)	(40)	50	(585)
Pre-Tax Margin	-124.4%	-112.1%	-273.7%	-2.3%	-20.1%	-4.5%	-27.9%	-18.4%	-4.5%	-1.2%	1.5%	-4.8%
Taxes (benefit)	0	0	0	0	0	0	0	0	0	0	0	0
Tax Rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Net income	(10,982)	(6,286)	(1,986)	(78)	(511)	(135)	(2,710)	(460)	(135)	(40)	50	(585)
Net Margin	-124.4%	-112.1%	-273.6%	-2.3%	-20.1%	-4.5%	-27.9%	-18.4%	-4.5%	-1.2%	1.5%	-4.8%
Total GAAP EPS	(9.45)	(2.61)	(0.50)	(0.02)	(0.08)	(0.02)	(0.53)	(0.07)	(0.02)	(0.01)	0.01	(0.09)
Diluted Shares Outstanding	1,162	2,413	3,979	4,258	6,015	6,300	5,138	6,500	6,700	6,800	6,900	6,725

Source: Company reports and Litchfield Hills Research LLC

Figure 9 – Actelis Networks – Balance Sheet (\$000)

December ending year	FY2025E	FY2024E	FY2023A	FY2022A
Balance sheet				
Current Assets				
Cash and S.T.I.	\$2,848	\$2,517	\$2,572	\$6,016
Accounts receivable	2,400	1,900	664	3,034
Inventories	2,000	2,200	2,526	1,179
Other assets	<u>300</u>	<u>450</u>	<u>150</u>	<u>678</u>
Total Current Assets	7,548	7,067	5,912	10,907
Net PP&E	50	52	61	80
Other non-current assets	<u>1,000</u>	<u>800</u>	<u>4,658</u>	<u>3,340</u>
Total Assets	<u>\$9,198</u>	<u>\$8,511</u>	<u>\$11,223</u>	<u>\$14,819</u>
Current Liabilities				
Accounts and other payables	\$1,200	\$900	\$1,769	\$1,781
Short term borrowings	\$1,000	\$1,000	\$1,335	\$553
Accrued royalties	\$1,000	\$1,030	\$1,062	\$900
Other current liabilities	<u>\$2,000</u>	<u>\$2,000</u>	<u>\$2,746</u>	<u>\$2,968</u>
Total current liabilities	5,200	4,930	6,912	6,202
Long-term loan, net	150	150	3,154	4,625
Other non-current	<u>600</u>	<u>500</u>	<u>769</u>	<u>727</u>
Total Liabilities	5,950	5,580	10,835	11,554
Warrants to placement agent	230	228	159	0
Stockholders' Equity				
Preferred stock				
Total stockholders' equity	<u>3,018</u>	<u>2,703</u>	<u>229</u>	<u>3,265</u>
Total Liabilities and equity	<u>\$9,198</u>	<u>\$8,511</u>	<u>\$11,223</u>	<u>\$14,819</u>

Source: Company reports and Litchfield Hills Research LLC

Figure 10 – Actelis Networks – Cash Flow (\$000)

	2025E	2024E	2023A
Net Income	(\$585)	(\$2,710)	(\$6,286)
Accounts receivable	(500)	(1,236)	2,370
Inventories	200	326	(1,347)
Other current	150	(300)	528
Net PP&E	2	9	19
Prepaid	(8)	0	(100)
Other non-current	(200)	3,858	(1,318)
Accounts and other payables	300	(869)	(12)
Short term borrowings	0	(335)	782
Accrued royalties	(30)	(32)	162
Other current liabilities	0	(746)	(222)
Long-term loan, net	0	(3,004)	(1,471)
Other non-current	100	(269)	42
Warrants to placement agent	2	69	159
Common stock	0	0	0
Additional paid in capital	900	5,184	3,250
Other comprehensive loss	0	0	0
Treasury stock and note	0	0	0
Dividend/Financing/Adj. Other	0	0	0
Total Cash Flow	<u>\$331</u>	<u>(\$55)</u>	<u>(\$3,444)</u>

Source: Litchfield Hills Research LLC

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Actelis Networks, Inc.

NASDAQ: ASNS - Buy-
US\$5.00 PT

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