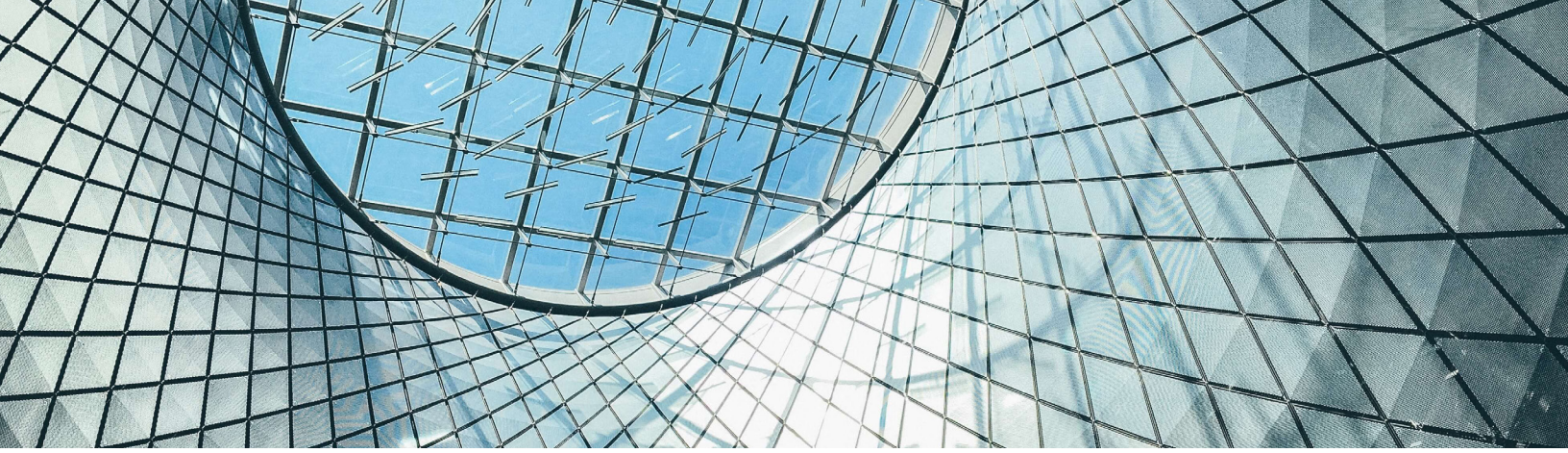

Market Insight Report Reprint

Edge IaaS across North America and Western Europe forecast to top $29.9B in 2027

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As successful as the hyperscale public model has been, not all workloads can or should be processed and stored in centralized datacenters. Edge computing will be a critical enabler of digital transformation for enterprises, and the opportunity for edge IaaS is accelerating across major markets in North America and Western Europe.

451 Research

S&P Global
Market Intelligence

Introduction

As successful as the hyperscale public model has been, not all workloads can or should be processed and stored in centralized datacenters. Edge computing represents a critical enabler of digital transformation for enterprises, and the opportunity for edge IaaS is accelerating across major markets in North America and Western Europe. According to the latest 451 Research Edge Infrastructure as a Service Market Forecast report, edge IaaS across North America and Western Europe is expected to top $29.9 billion in 2027, which is 40 times more than 2021 revenue, growing at a CAGR of 85% during the forecast period. The total number of organizations deploying edge IaaS is expected to grow at a 52% CAGR from 2021-2027, from 44,700 organizations in 2021 to over 556,800 in 2027. The global information and communications technology industry is accelerating into yet another secular pendulum swing of digital infrastructure expansion, from centralized to distributed locations, also called the edge. In most cases, the decision does not come down to either centralized or decentralized IT; it is about how to make the best use of both.

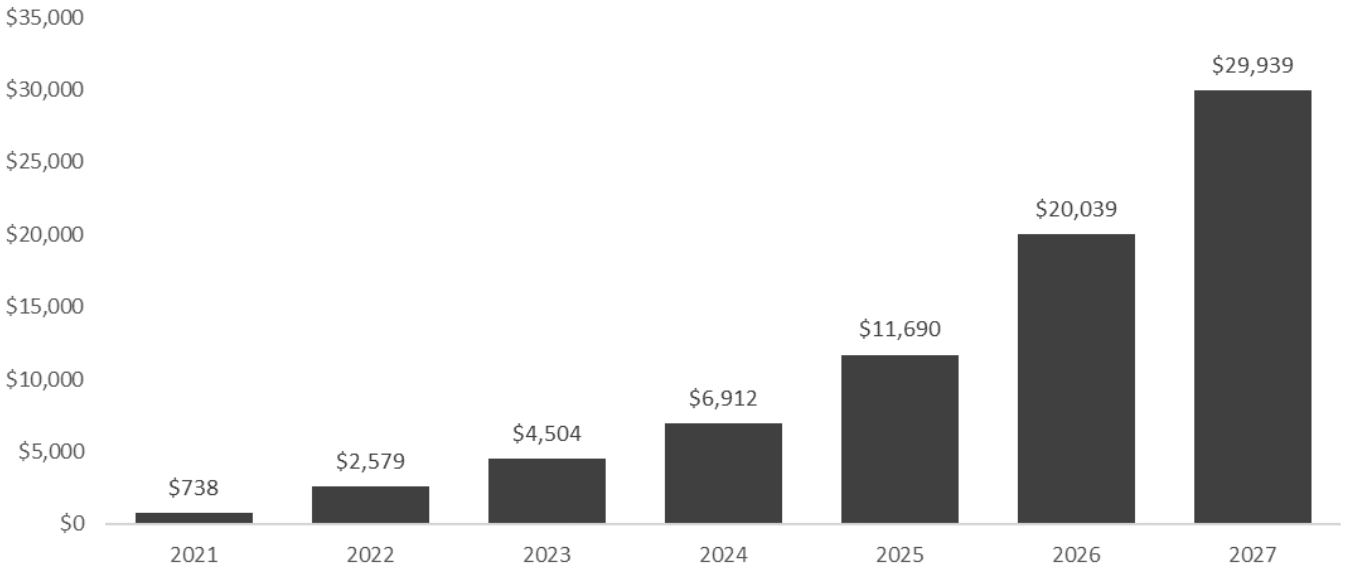
THE TAKE

Most enterprises have digital use cases that can benefit from the use of edge computing. These range from services designed to enhance the customer experience, improve workforce efficiency and ensure security (physical and cyber) at edge locations, to those designed to optimize supply chains and support private cellular networks. The range of use cases destined for the edge reflects a highly diverse market – one that increasingly positions edge IT as a key contributor to success. Our forecasts reflect an accelerating opportunity for edge IaaS providers, driven by vertical market adoption led by the manufacturing segment, overall accounting for 44% of the total edge IaaS market in 2021 and a projected 54% share in 2027. Average revenue per organization is expected to grow as organizations continue to deploy additional connected endpoints and increase the amount of data at the edge. The six edge IaaS architectures are expected to grow at double- and triple-digit CAGR over the forecast period.

Edge IaaS expected to top $29.9 billion in 2027

Across North America and Western Europe, the edge IaaS market is expected to grow at 85% CAGR from 2021-2027 – from $738 million in 2021 to $29.9 billion in 2027. North America accounted for 89% 2021 and Western Europe 11%. Western Europe is expected to grow at a higher CAGR, at 1.8x North America's CAGR during the forecast period, and is expected to account for 44% of total edge IaaS market in 2027.

Figure 1: North America and Western Europe Total Edge IaaS Market Forecast ($M)

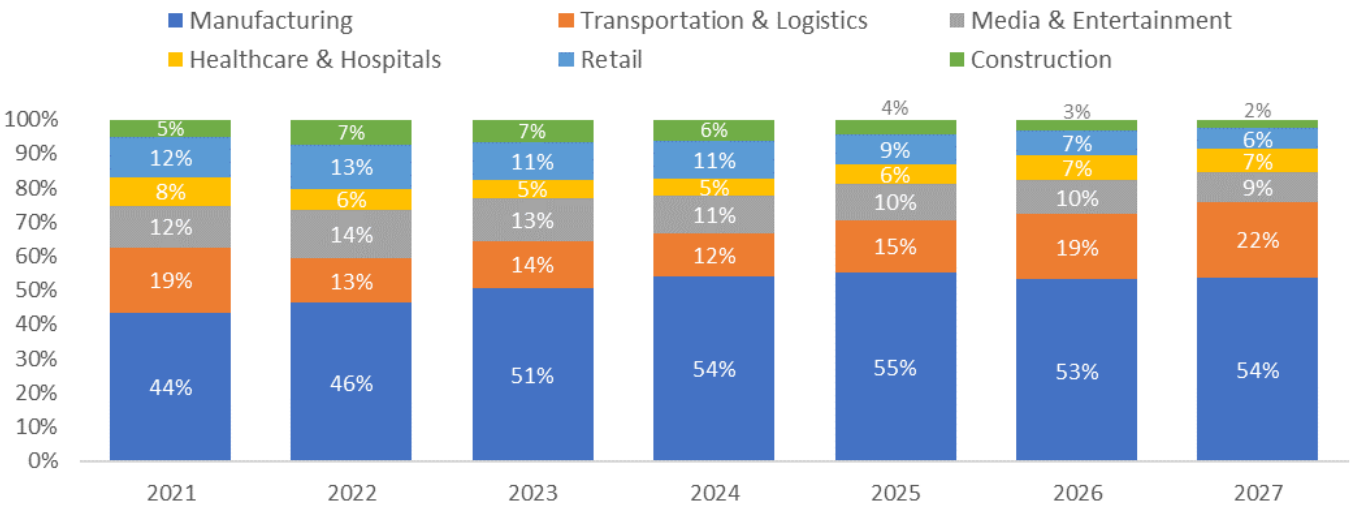


Source: 451 Research's Edge Infrastructure as a Service Market Monitor: Market Forecast

Manufacturing is the leading vertical opportunity for edge IaaS suppliers

The majority of the total edge IaaS market opportunity will likely fall within the manufacturing segment, overall accounting for 44% of the total edge IaaS market in 2021 and 54% in 2027. Manufacturing is the leading opportunity for edge services, driven by the total number of manufacturing locations globally, the majority of which are in the beginning or middle stages of a digital transformation that will see them deploy more advanced, low-latency applications in areas like autonomous robotics, co-bots, and edge-dependent infrastructure, including private 4/5G cellular networks, predicative and condition-based maintenance, inventory and supply chain logistics, and manufacturing processes dependent on vision analytics or augmented/virtual/mixed reality.

Figure 2: Total North America and Western Europe Edge IaaS Market Forecast % Split by Vertical

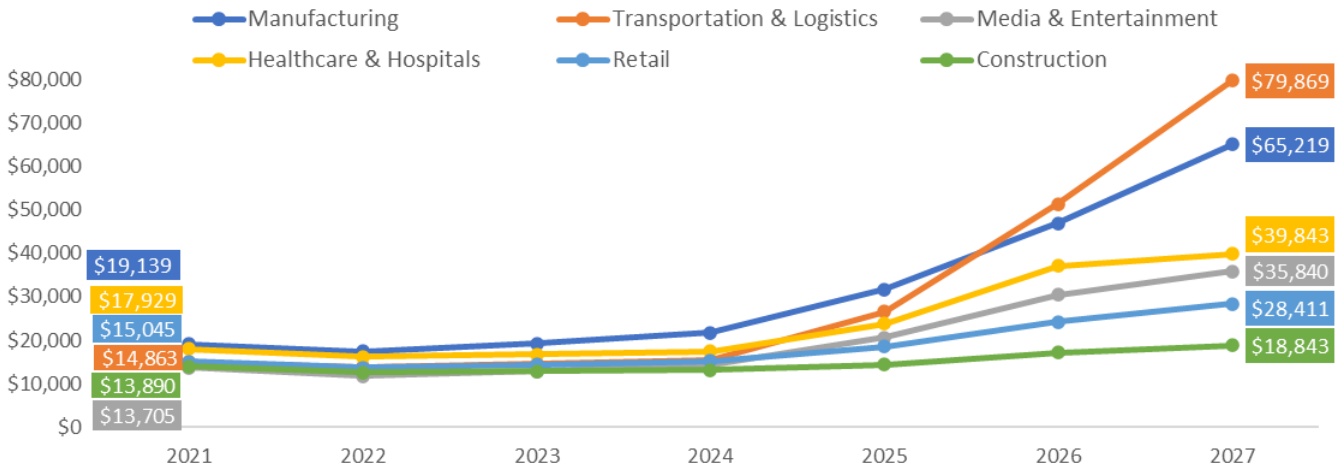


Source: 451 Research's Edge Infrastructure as a Service Market Monitor: Market Forecast

Average edge IaaS revenue per organization expected to rise

Average revenue per organization is expected to grow as organizations continue to deploy additional connected endpoints and increase the amount of data stored and transferred at the edge. The transportation and logistics segment is expected to have the highest average revenue per organization in 2027, at $79,869 per organization, followed by manufacturing at $65,219 per organization. It is important to note that the average revenue per organization varies tremendously across verticals and company size.

Figure 3: Total North America and Western Europe Average Edge IaaS Revenue ($M) per Organization by Vertical



Source: 451 Research's Edge Infrastructure as a Service Market Monitor: Market Forecast

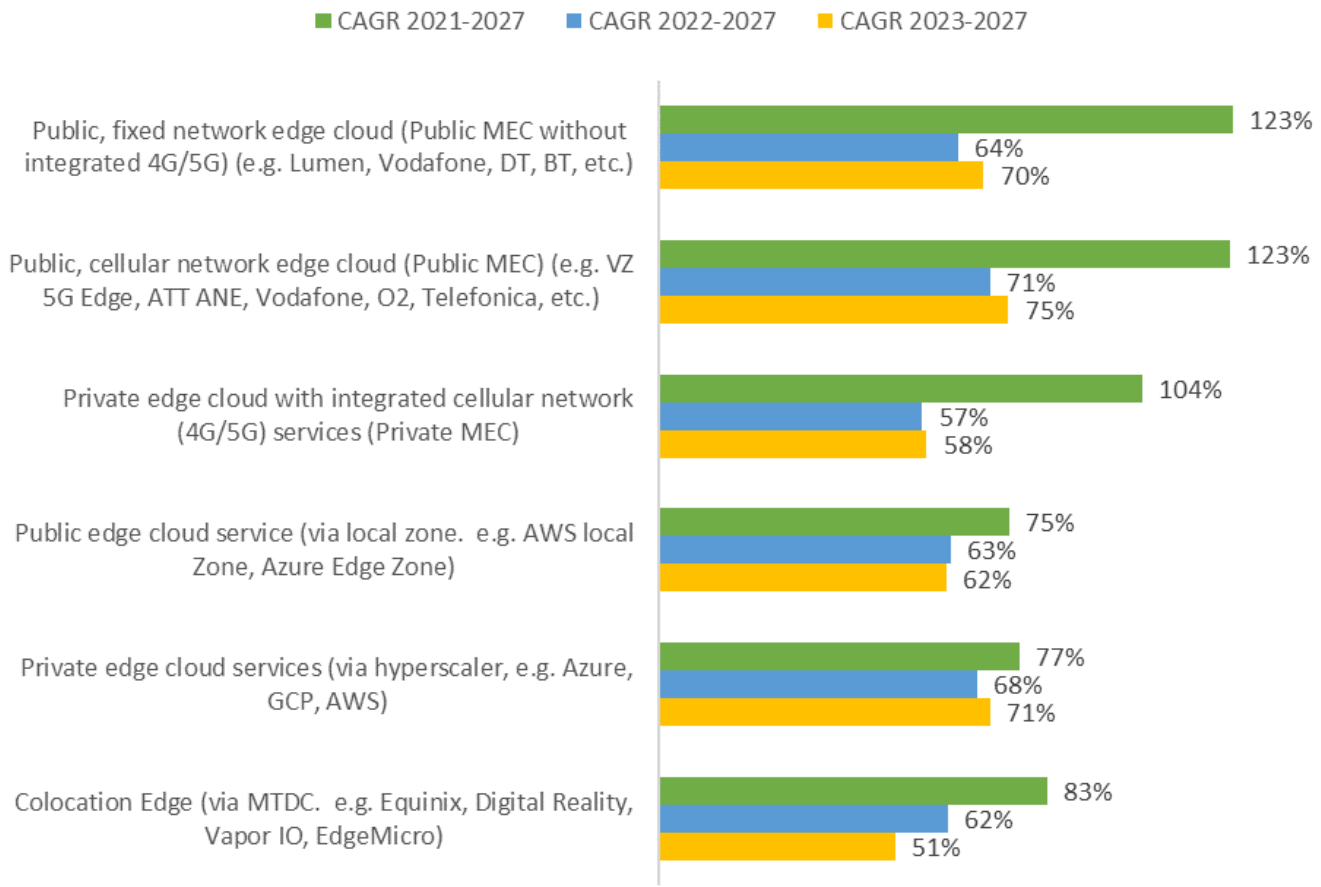
Edge IaaS architectures expected to grow

Overall, the six edge IaaS architectures are expected to grow at double- and triple-digit CAGRs over the forecast period, with both public, fixed network edge cloud (public MEC without integrated 4G/5G) and public, cellular network edge cloud (public MEC) leading the CAGR across North America and Western Europe.

Across the six edge IaaS architecture types, colocation edge topped the Western Europe edge IaaS market in 2021, accounting for 80% of total edge IaaS market opportunity in 2021. It is expected to account for 40% in 2027 as new edge IaaS types continue to enter the Western European region. Despite losing 40% of the market during the forecast period, the colocation edge market should continue to grow from $65 million in 2021 to $5.2 billion in 2027 in the region.

In North America, private edge cloud services (via hyperscalers) accounted for 34% of the region's edge IaaS market in 2021, totaling $224 million. It is expected to remain the largest segment, accounting for 22% of the North America edge IaaS market in 2027, totaling $3.7 billion.

Figure 4: Total North America and Western Europe Edge IaaS Market Forecast CAGR by Type



Source: 451 Research's Edge Infrastructure as a Service Market Monitor: Market Forecast

Conclusion

The range of use cases destined for edge clouds reflects a highly diverse market, and one that increasingly positions distributed edge IT as a key contributor to success. Edge-as-a-service offerings are emerging globally from a variety of suppliers, including fixed and wireless telecom operators, multi-tenant datacenter operators, and public cloud providers themselves. Of course, workload and IT architecture decisions will be driven by use cases and economics – any workload that can be adequately and cost-effectively executed in centralized cloud regions should continue to land there.

Methodology

This 451 Research study aims to size the overall market for edge IaaS via a bottom-up approach. The study utilized end-user surveys to build a profile of enterprises across six verticals to understand the current and future landscape of low-latency workload deployments, connected devices and data at the edge. The study output includes a revenue forecast (generated via compute cost, storage cost and data transfer cost), the number of organizations deploying edge IaaS and average revenue per organization. It also includes an edge IaaS forecast for 21 countries across North America and Western Europe. The six verticals included in the forecast are: construction, healthcare, manufacturing, media and entertainment, retail and wholesale, and transportation and logistics.

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