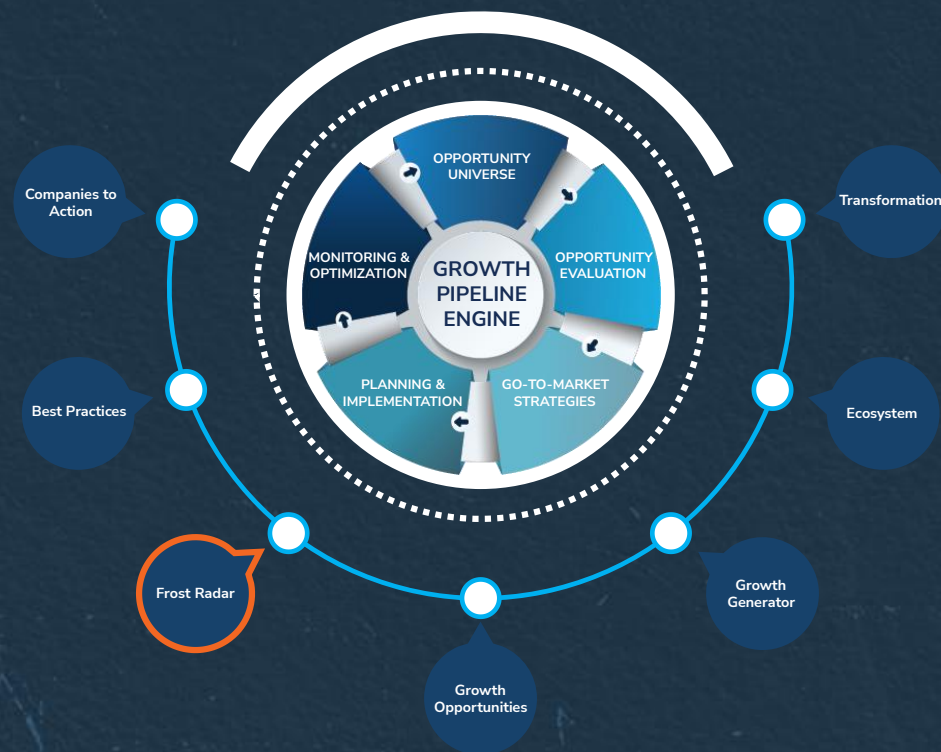


Frost Radar™: Carrier Ethernet Services in North America, 2026

A Benchmarking System to Spark Companies to Action - Innovation That Fuels New Deal Flow and Growth Pipelines



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Strategic Imperative and Growth Environment



Strategic Imperative

- Carrier Ethernet services continue to be the de facto wide area network (WAN) connectivity service choice among businesses of all sizes, with benefits including scalability, reliability, and cost-efficient bandwidth.
- Enterprises continue to shift to higher-capacity ports to accommodate the growth of bandwidth-hungry applications. Interviews with service providers validate higher demand for 1 Gbps and 10 Gbps ports and increasing demand for 100 Gbps ports.
- In North America, enterprise adoption of Ethernet access to connect with the cloud will sustain the demand for retail Ethernet. Carriers saw higher demand from enterprises for Ethernet to access cloud-based applications and connect on-premises and hosted data centers. They also reported growing demand for higher-capacity ports from hyperscalers.
- In Frost & Sullivan's 2026 Global Enterprise Network Survey, 49% of U.S. businesses stated that Ethernet is currently part of their network infrastructure, while 38% indicated it will be important to their network strategy over the next two years. These findings underscore Ethernet's continued relevance as a critical foundation for enterprise connectivity, supporting performance, scalability, and reliability across evolving digital environments.
- Increasing enterprise adoption of AI-enabled applications and services is driving demand for high-bandwidth Ethernet services. Ethernet is a high-assurance transport aligned with the enterprise's broader edge computing, security, and application-performance strategies, delivering deterministic connectivity for latency-sensitive, data-intensive workloads.

Strategic Imperative

- Most North American service providers are offering Ethernet solution through their Network-as-a-service (NaaS) platform to offer flexibility and choices. NaaS is an end-to-end service model that includes customer-premises hardware, single-pane-of-glass management, and an orchestration platform.
- In North America, global enterprise, healthcare, finance, large cloud providers, state and local government, education, telecommunication companies, small and medium-sized businesses, and manufacturing verticals continue to demand high-speed Ethernet services. Reliability, scale, secure connectivity, regulatory compliance, and control over WAN is driving demand for Ethernet services. Service providers that Frost & Sullivan interviewed for this analysis confirmed increasing demand for 10 Gbps and above from these verticals.
- Frost & Sullivan defines business carrier Ethernet services as those that network service providers (NSPs) sell to enterprises or businesses, while wholesale services are services that providers sell to other carriers, systems integrators, and resellers. Carrier Ethernet services include all layers of services (1, 2, and 3) sold under different names, including transparent or native local area network (LAN), Gigabit Ethernet (GigE), metro Ethernet, Ethernet private line (EPL), Ethernet virtual private line (EVPL), and virtual private LAN service (VPLS). NSPs support Ethernet solutions with symmetrical bandwidth, service-level agreements (SLAs), proactive monitoring of networks, and 24/7/365 customer support.

Strategic Imperative (continued)

- This analysis uses the MPLIFY (formerly MEF) definition for a Carrier Ethernet service. MPLIFY, an industry consortium of network, cloud, and technology providers, has documented numerous technical requirements to build and manage feature-rich, business-class Ethernet services over any infrastructure and drive the widespread availability of Ethernet services.
- MPLIFY provides certification as MEF 2.0 and 3.0. MEF 2.0 certification primarily focused on ensuring standardization of carrier Ethernet services (Ethernet Line, Ethernet LAN, and Ethernet-Tree services). MEF 3.0 builds on MEF 2.0 by adding automation, security, SD-WAN, and cloud integration, making it a more comprehensive framework for modern network services. Additionally, MEF 3.0 Carrier Ethernet certification is further evolving into Carrier Ethernet for Business Certification and Carrier Ethernet for AI Certification. More details can be found on the [MPLIFY FAQ](#).

Growth Environment

- The Carrier Ethernet services market is in the mature stage of its life cycle, with year-over-year growth rates declining in the last 5 years. The retail and wholesale markets are experiencing negative growth rates because of price compression, market maturity, number of competitors, and increased usage of less expensive underlay technologies with SD-WAN. Frost & Sullivan estimated North American carrier Ethernet services revenue at \$4.93 billion in 2025 and expects a compound annual growth rate (CAGR) of negative 5.0% from 2024 to 2030.
- Frost & Sullivan does not anticipate an abrupt decline in Ethernet revenue despite projected negative growth rates. Enterprises will continue to rely on Ethernet services for their flexibility, scalability, reliability, and predictable performance. Demand for switched Ethernet services will remain resilient, as enterprises can purchase a single-user network interface (UNI) port and create multiple Ethernet Virtual Connections (EVCs), allowing them to efficiently share bandwidth across different applications and locations.
- Revenue decline in the business carrier Ethernet market is largely driven by intense competitive pressure, which continues to compress price per megabit. At the same time, SD-WAN is reshaping private WAN demand as enterprises evaluate more flexible and cost-efficient alternatives. Many organizations are increasingly pairing SD-WAN with lower-cost, high-bandwidth internet services, such as dedicated internet access and broadband, instead of relying solely on traditional Ethernet-based private WAN services.

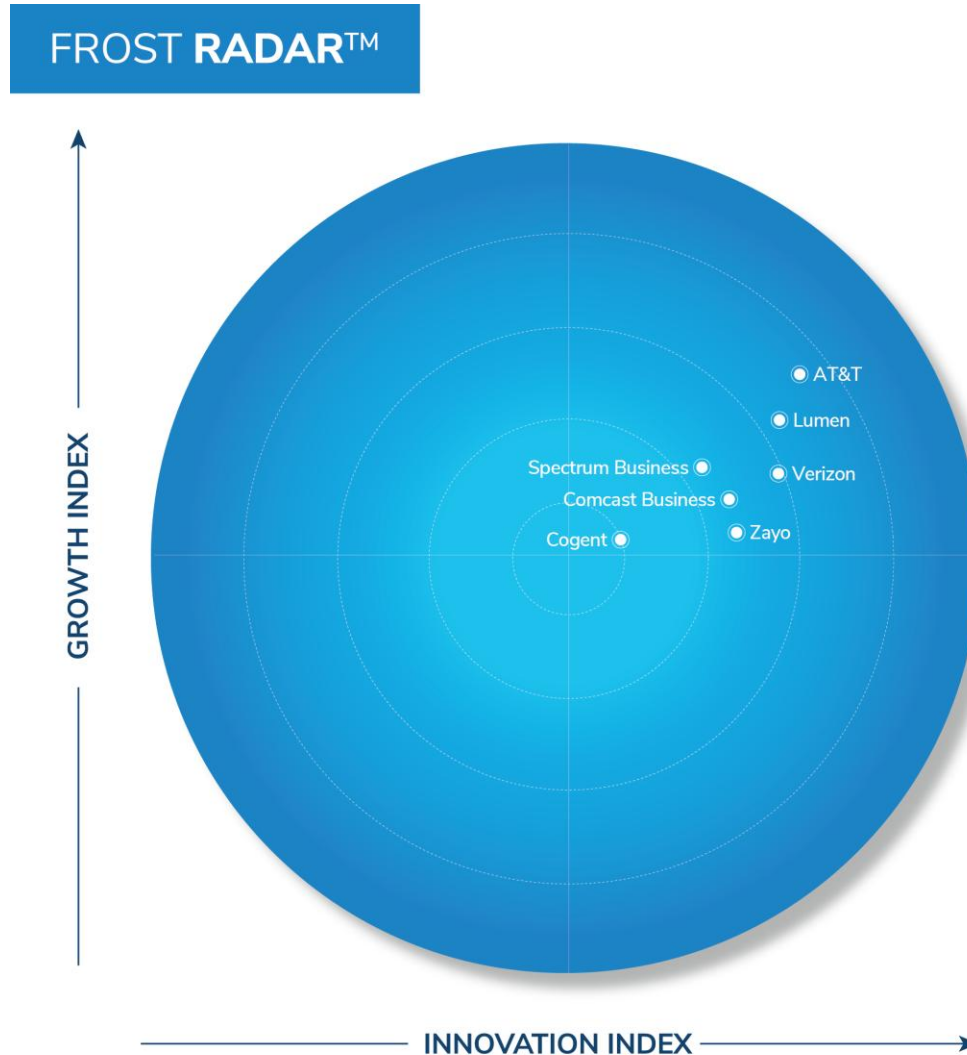
Growth Environment

- Enterprises' need for security and performance control continues to drive demand for private networks, especially Ethernet services in the 10 Gbps and above range.
- Ethernet on-demand, or dynamic bandwidth, is becoming a common Ethernet offering, giving customers greater control over network resources. Through self-service portals, enterprises can scale bandwidth up or down in near real time based on application demand, traffic patterns, and business requirements.
- The other value-added services that NSPs offer through a self-service portal include monitoring and managing network sites (e.g., latency, jitter, packet loss, availability, and frame loss), checking outage updates, troubleshooting, configuring services, making real-time changes, and 24/7 support.
- Ethernet services enable rapid, secure connectivity to cloud providers, supporting cloud connect use cases with predictable performance, low latency, and scalable bandwidth for hybrid and multi-cloud environments. In addition, service providers offer to quickly connect to cloud providers while connecting colocation services within days.
- NSPs are investing in expanding and modernizing their network infrastructure to meet rising demand for high-bandwidth connectivity driven by AI-enabled applications, data-intensive workloads, and cloud-based solutions. These investments support higher port speeds, broader service availability, and faster delivery timelines, with leading providers enabling new Ethernet installations in on-net buildings within days rather than months.

Frost Radar™: Carrier Ethernet Services in North America



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Frost Radar™ Competitive Environment

- The North American carrier Ethernet service market is competitive, with at least 12 major NSPs participating. However, not all have significant market shares or highly innovative offerings. Frost & Sullivan independently plotted the top 7 in this Frost Radar analysis, selected primarily based on their Ethernet service's features and functionality, as well as market share, port count, geographic reach, and company growth performance.
- NSPs differentiate their Ethernet offerings based on high-capacity speed options and value-added capabilities such as Ethernet on demand, self-service portals, enhanced security, competitive pricing, and accelerated installation in on-net buildings. MEF CE 2.0 and 3.0 certifications further strengthen differentiation by validating service quality, interoperability, and alignment with recognized industry standards.
- AT&T leads the Growth and Innovation Index, based on its comprehensive Ethernet portfolio, large customer base, stable revenue, and extensive metro and long-haul footprint across North America. AT&T Switched Ethernet on Demand (ASEoD) stands out as a differentiated market offering, enabling customers to manage services through a self-service portal with capabilities such as on-demand ordering, network configuration changes, and pre-provisioned connectivity to cloud and colocation facilities. AT&T further strengthens its Ethernet value proposition through Managed ASEoD and optional security capabilities delivered via Dynamic Defense.

Frost Radar™

Companies to Action



AT&T

INNOVATION

- AT&T offers switched Ethernet services across its extensive metro and long-haul footprints in North America with speed configurations from 2 Mbps to 100 Gbps. AT&T offers one of the most competitive Ethernet services with varied bandwidth choices that fit customers' network service needs.
- AT&T Switched Ethernet on Demand (ASEoD) is the company's flagship product, providing business-grade internet access and a virtual private network on a single connection. The solution offers faster network provisioning (sites turn up in days as opposed to months), on-demand bandwidth choices (2 Mbps to 100 Gbps), and deep security features. The company is developing a 400 Gbps Ethernet on-demand solution and plans to offer it in 2027.
- ASEoD services are managed through the AT&T Business Center customer portal, enabling self-service, near real-time order changes, simplified on-demand ordering, dynamic network configurations, and pre-provisioned connectivity to the cloud and colocation facilities via AT&T Dynamic Exchange. In addition to near real time service changes, ASEoD provides customers the flexibility to dynamically manage bandwidth between VPN and internet traffic using a single physical connection through the Internet Ethernet Virtual Connection (iEVC). To secure the public internet portion of this connection, AT&T offers optional, network-embedded advanced security through its Dynamic Defense solution, which filters malicious traffic and enforces security policies on the iEVC before data reaches the customer network.

AT&T (continued)

INNOVATION

- For retail customers with multiple branch locations, AT&T's Managed ASEoD solution uses a single device to provide the flexibility of managing multiple circuits and devices, along with routing, firewall, switching, web filtration, intrusion prevention system (IPS) services, and proactive network management to detect, prevent, and resolve issues.
- AT&T also offers engineered diverse access, using physically separate paths with dedicated electronics to connect a customer location to the ASEoD network, enhancing reliability, minimizing downtime risk, and providing redundancy in the event of network failures such as fiber cuts.
- AT&T's ASEoD offers customers the ability to configure Single Class of Service (SCoS) and Per Packet Class of Service (PPCoS), with traffic markings, at both the VLAN (EVC) and per packet level. This flexibility allows customers to prioritize the traffic that matters most, enabling network designs that consistently favor high priority applications over lower priority traffic while supporting mixed application environments with SLA backed performance.
- AT&T continues to invest billions of dollars each year in product development and technology advancements, highlighting its continued focus on innovation and building new technologies in the network services space.

AT&T (continued)

GROWTH

- AT&T has one of the largest fiber networks, exceeding 1.5 million fiber route miles globally. Based on its vast network of more than 880,000 fiber-lit buildings and presence in 600+ US carrier hotel data centers, AT&T offers market-leading switched Ethernet services and operates in at least 10 million customer locations in the United States on or within 1,000 feet of its fiber. AT&T leads the market based on its extensive client base, strong brand reputation, and ability to seamlessly upsell and cross-sell its services.
- In February 2026, AT&T completed its acquisition of Lumen's Mass Markets fiber business, adding 1 million fiber subscribers across 4 million customer locations in 11 states. This acquisition, combined with ongoing buildouts, significantly extends AT&T's reach, positioning it to serve up to 60 million locations by 2030. In March 2026, AT&T committed to invest \$250 billion over five years in the US to expand advanced connectivity, enhancing network speed, resilience, and future innovation.
- AT&T is set to accelerate its fiber expansion strategy following the passage of the One Big Beautiful Bill Act. The pro-investment framework is expected to streamline deployment of next-generation infrastructure, with the company targeting the addition of approximately 1 million fiber customer locations annually starting in 2026.
- The company supports secure, high-capacity bandwidth requirements across diverse verticals, including healthcare, government, financial services, manufacturing, education, SMBs, and wholesale segments.

AT&T (continued)

FROST PERSPECTIVE

- AT&T maintains a leading position in North America, based on its extensive metro and long-haul network footprint and broad base of fiber-lit buildings, enabling it to offer Ethernet services of up to 100 Gbps.
- Frost & Sullivan research concluded that AT&T outperformed the market in Ethernet services, recorded a year over year revenue growth while the overall market declined at a CAGR of 5%. The incremental revenue growth is supported by the migration of legacy customers to the Ethernet solution. In addition, competitive pricing, a strong sales and marketing strategy, the ASEoD solution, and investments in enhancing its service capabilities contributed to its continued strong market position.
- AT&T has strengthened its Ethernet services over the last year by investing in its Managed ASEoD offerings and the digital customer experience, increasing diverse access options, adding optional security with its AT&T Dynamic Defense solution, and expanding its fiber footprint.
- Frost & Sullivan noted that ASEoD services differentiate AT&T's Ethernet solutions in the market, and AT&T should add more value-added services with its Ethernet services, similar to Managed ASEoD, to further strengthen its market-leading offering.

Best Practices & Growth Opportunities



Best Practices

1

Bandwidth on demand is becoming prevalent in Ethernet solutions, enabling real-time provisioning and flexible scaling.

2

Fiber expansion to reach more customers with flexible bandwidth options, and delivering quick connectivity to leading cloud providers.

3

A self-service portals enable customers to select and manage services tailored to their business requirements.

Growth Opportunities

1

Businesses continue to adopt hybrid and multi-cloud architectures spanning public cloud platforms and private data centers. This migration is increasing demand for Ethernet services as enterprises seek reliable, high-performance connectivity to support cloud access and interconnection between distributed IT workloads.

2

AI applications are increasing enterprise data movement from branch locations to data centers and the clouds, driving Ethernet demand. Latency-sensitive IoT, cloud, and AR/VR use cases are accelerating interest in higher-speed Ethernet, with 400 Gbps expected to gain traction in the coming years.

3

Dynamic network connectivity services are increasingly aligning with NaaS models, delivering an on-demand, cloud-centric experience with greater user control over network resources. Enterprises can provision, scale, and manage Ethernet bandwidth more flexibly, while maintaining SLA-backed performance and security.

Frost Radar™ Analytics



Frost Radar™: Benchmarking Future Growth Potential

2 Major Indices, 10 Analytical Ingredients, 1 Platform

Growth Index

Growth Index (GI) is a measure of a company's growth performance and track record, along with its ability to develop and execute a fully aligned growth strategy and vision; a robust growth pipeline system; and effective market, competitor, and end-user focused sales and marketing strategies.

GI1**MARKET SHARE (PREVIOUS 3 YEARS)**

This is a comparison of a company's market share relative to its competitors in a given market space for the previous 3 years.

GI2**REVENUE GROWTH (PREVIOUS 3 YEARS)**

This is a look at a company's revenue growth rate for the previous 3 years in the market/industry/category that forms the context for the given Frost Radar.

GI3**GROWTH PIPELINE**

This is an evaluation of the strength and leverage of a company's growth pipeline system to continuously capture, analyze, and prioritize its universe of growth opportunities.

GI4**VISION AND STRATEGY**

This is an assessment of how well a company's growth strategy is aligned with its vision. Are the investments that a company is making in new products and markets consistent with the stated vision?

GI5**SALES AND MARKETING**

This is a measure of the effectiveness of a company's sales and marketing efforts in helping it drive demand and achieve its growth objectives.

Frost Radar™: Benchmarking Future Growth Potential

2 Major Indices, 10 Analytical Ingredients, 1 Platform

Innovation Index

Innovation Index (II) is a measure of a company's ability to develop products/ services/ solutions (with a clear understanding of disruptive megatrends) that are globally applicable, are able to evolve and expand to serve multiple markets and are aligned to customers' changing needs.

II1

INNOVATION SCALABILITY

This determines whether an organization's innovations are globally scalable and applicable in both developing and mature markets, and also in adjacent and non-adjacent industry verticals.

II2

RESEARCH AND DEVELOPMENT

This is a measure of the efficacy of a company's R&D strategy, as determined by the size of its R&D investment and how it feeds the innovation pipeline.

II3

PRODUCT PORTFOLIO

This is a measure of a company's product portfolio, focusing on the relative contribution of new products to its annual revenue.

II4

MEGATRENDS LEVERAGE

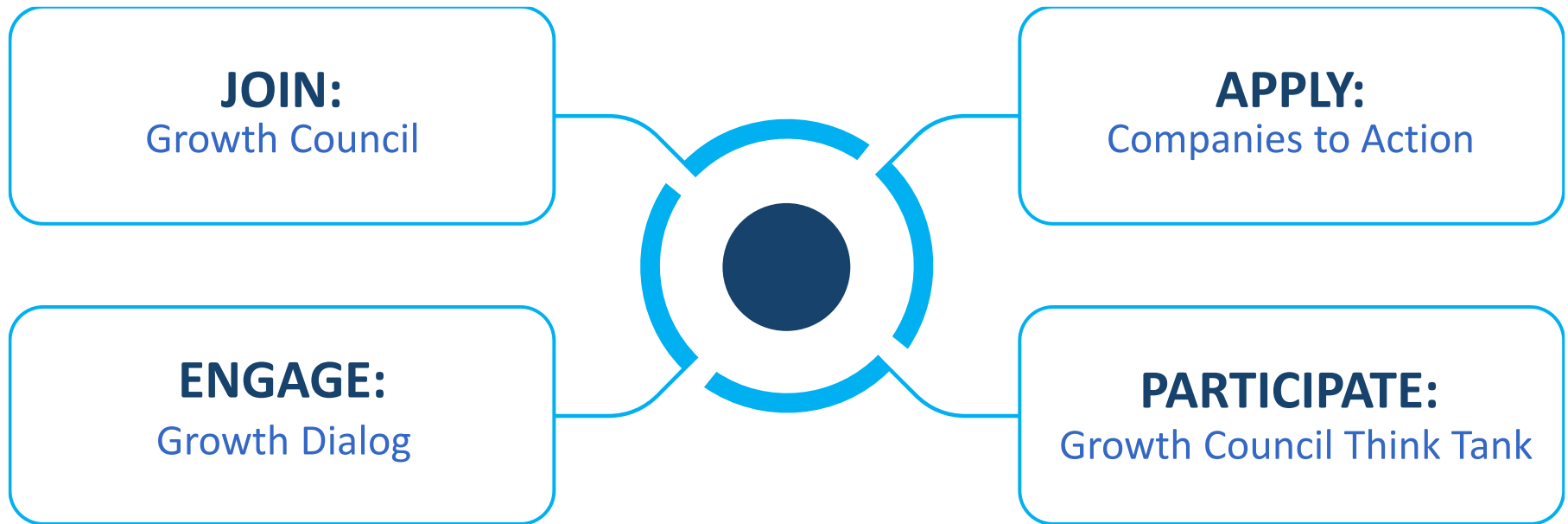
This is an assessment of a company's proactive leverage of evolving, long-term opportunities and new business models, as the foundation of its innovation pipeline. An explanation of megatrends can be found [here](#).

II5

CUSTOMER ALIGNMENT

This evaluates the applicability of a company's products/services/solutions to current and potential customers, as well as how its innovation strategy is influenced by evolving customer needs.

Next Steps



Does your current system support rapid adaptation to emerging opportunities?

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