Helium (HNT)

Tokenholder Report

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Q4 2025

Blockworks Advisory

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Executive Summary

Connectivity, Rebuilt. Helium is advancing its mission to structurally reduce annualized telecom capital expenditures while establishing a more intelligent wireless platform that can scale across global carriers. Last quarter, the Network crossed multiple inflection points that signal a transition from experimentation to durable longevity. Revenue generation strengthened meaningfully, network utilization increased, and growing carrier demand continued to validate Helium's role as a cost-efficient, data-rich layer within modern telecom infrastructure. These developments signal a leveling-up in Helium's evolution toward a self-sustaining, multi-channel wireless platform.

Network Revenue and Utilization Continue to Climb. Q4 Data Credit (DC) burn from Carrier Offload and network usage grew to $2.3M (+53% QoQ), while network utilization expanded to 76.9%, up from 62.5% in Q3, meaning more than three-quarters of rewardable entities now actively serve data.

Underlying this revenue growth, total data transfer hit 5,513 TB (+47.7% QoQ). Daily active users averaged 1.62M for the quarter (+35% QoQ), peaking at an all-time high of 2.53M on December 20.

Management Commentary

Over the past quarter, Helium has continued to demonstrate meaningful operational momentum. Daily active usage from carrier partners has increased steadily, reinforcing the commercial relevance of the network and validating Helium's role as a production-grade component of carrier infrastructure. What initially emerged as an alternative deployment model is now proving its ability to deliver reliable coverage at scale.

Helium addresses a structural inefficiency in the telecom industry. Traditional carriers face rising capital and operating expenditures to expand coverage, particularly in large and dense indoor environments such as shopping malls, transit centers, entertainment venues, and more. These locations are among the most expensive and operationally complex areas to serve using conventional infrastructure and where Helium has seen meaningful expansion and success. This allows carriers to expand coverage at a fraction of the historical cost by leveraging a distributed base of community-operated infrastructure as well as Helium's ability to convert existing hardware in the field into compatible deployments. Notably, Helium Hotspots provide granular Quality of Service (QoS) metrics and coverage telemetry that has been difficult or costly for carriers to obtain, especially indoors, until now.

From a broader industry perspective, we see telecom evolving toward a multi-network operating model. Carriers are increasingly relying on a mix of access technologies rather than exclusively on owned and operated infrastructure. Decentralized wireless networks like Helium represent an early and scalable expression of this shift. Instead of funding all expansion through balance sheet capital, carriers have already begun dynamically extending coverage through aligned third-party incentives while maintaining control over user experience and service quality.

Beyond coverage expansion, Helium functions as an intelligence layer that helps carriers integrate licensed spectrum with complementary networks such as Wi-Fi. By providing real-time data on performance, usage, and quality, the network enables more informed routing decisions, capital allocation, and traffic management. Helium and its participating carrier partners are among the first to operate with this level of real-time, cross-network visibility, and the resulting demand signal is becoming increasingly clear. Interest in intelligent offload networks continues to grow, both from existing partners and from prospective carriers in the United States and internationally.
For investors, Helium represents exposure to a structural shift of

wireless infrastructure. The network combines capital efficiency, measurable usage growth, and a scalable model that aligns carrier economics with decentralized deployment. As carriers continue to prioritize cost discipline while seeking improved indoor coverage and better network intelligence, Helium is positioned as a differentiated solution at the intersection of telecom infrastructure and decentralized networks.

- Helium Team

Financials

Helium Income Statement

	Q4 '25	Q3 '25	Q2 '25	Q1 ' 25	Q4 ' 24
Total Revenue	$ 5.2M	$ 2.8M	$ 948.5K	$ 555.3K	$ 547.4K
Mobile	*$ 5.2M*	*$ 2.8M*	*$ 938.3K*	*$ 543.8K*	*$ 537.4K*
Data Credit Burn*	$ 5.2M	$ 2.8M	$ 938.3K	$ 543.8K	$ 537.4K
IOT Network	*$11.5K*	*$ 10K*	*$ 10.3K*	*$ 11.4K*	*$ 9.9K*
Total Expenses	$ (4.2M)	$ (8.7M)	$ (16.1M)	$ (18.8M)	$ (28.7M)
HNT Emissions	$ (4.2M)	$ (8.7M)	$ (16.1M)	$ (18.8M)	$ (28.7M)
Net Income	$ 995.6K	$ (5.9M)	$ (15.1M)	$ (18.3M)	$ (28.2M)
oEPT**	$0.005	-$0.031	-$0.081	-$0.101	-$0.159

*Includes an experimental discretionary DC burn from Helium Mobile revenue.

**Outstanding Earnings per Token (oEPT) measures quarterly net income divided by the total outstanding token supply, reflecting per-token profitability.

Data as of December 31, 2025 | Source: Blockworks Research

Income Statement Notables

Total Revenue

Q4 total revenue was $5.2M (including $2.9M from the now-terminated discretionary DC burn, discussed below), with Mobile contributing 99.8% ($5.2M) and IoT at $11.5K (~0.2%). Carrier Offload DC burn, representing organic network usage from carrier partnerships reached $2.3M, up 53% QoQ from $1.5M in Q3. This carrier-driven growth validates deepening partnerships and expanding network utilization independent of other revenue sources.

Total Expenses

Q4 expenses totaled $4.2M, consisting entirely of HNT emissions, down ~52% QoQ from $8.7M in Q3 and down ~85% from Q4 '24's $28.7M. The decline in dollar-denominated emissions from Q4 '24 through Q2 '25 ($28.7M → $18.8M → $16.1M) was driven by HNT price depreciation, with the unit emission rate unchanged. The protocol-level halving in August 2025 cut the HNT emission rate by 50%, contributing to the Q3 and Q4 reductions. While non-cash, emissions represent supply dilution to token holders.

Revenue Analysis

Looking ahead, organic network revenue, driven by Carrier Offload, will be the primary indicator of protocol health. Q4's 53% QoQ growth in carrier-driven DC burn ($1.5M → $2.3M) demonstrates sustained momentum in the network's core value proposition.

Excluding the $2.9M discretionary DC burn (now terminated), sustainable DC burn revenue from Carrier Offload totaled $2.3M against HNT emissions of $4.2M, achieving a 54.8% revenue-to-emissions ratio. While not yet at breakeven on a sustainable basis, this represents significant progress from 33% in Q3, 6% in Q2, and 1.9% in Q4 '24, a 27x improvement year-over-year.

On a sustainable revenue basis, net income was -$1.9M, reflected in an oEPT of -$0.010. While still negative, this marks meaningful improvement from -$0.031 in Q3 and -$0.159 in Q4 '24, demonstrating the network's path toward self-sustaining economics as carrier partnerships scale.

Cash Flow Notables

	Q4 2025	Q3 2025	Q2 2025	Q1 2025	Q4 2024
Net Cash from Operating Activities	**$ 995.6K**	**$ (5.9M)**	**$ (15.1M)**	**$ (18.3M)**	**$ (28.2M)**
Data Credit Burn*	$ 5.2M	$ 2.8M	$ 938.3K	$ 543.8K	$ 537.4K
HNT Emissions	$ (4.2M)	$ (8.7M)	$ (16.1M)	$ (18.8M)	$ (28.7M)
Net Cash from Investing Activities	-	-	-	-	-
Net Cash from Financing Activities	**$ (2.3M)**	-	-	-	-

*Includes an experimental discretionary DC burn from Helium Mobile revenue.

Data as of December 31, 2025 | Source: Blockworks Research

Operating Cash Flow Improvement

Q4 ‘25 sustainable operating cash flow reached -$1.9M, up from -$5.9M in Q3, a $4.0M improvement driven by the convergence of organic revenue growth and emission moderation.

Carrier Offload and organic network usage generated $2.3M in DC burn revenue, up 53% from $1.5M in Q3. Simultaneously, HNT emissions declined to $4.2M, down 52% from $8.7M following the August halving. Sustainable DC burn achieved a 54.8% coverage ratio against HNT emissions, up from 17% in Q3, demonstrating accelerating progress toward protocol self-sustainability.
Note: Total DC burn of $5.2M included $2.9M from discretionary burns that have since been terminated. The sustainable metrics above reflect only organic Carrier Offload revenue, which represents the go-forward economic baseline.

Discretionary DC Burn

In August 2025, Helium Mobile, a service provider to the Helium protocol, began routing 100% of Helium Mobile subscriber revenue into open-market HNT purchases via Jupiter’s DCA mechanism. The purchases were then burned to Data Credits. The goal was to test whether systematic purchasing, combined with reduced emissions, would translate into tighter feedback between network usage and token value. The experiment produced $2.9M in discretionary burns across Q4. Combined with organic protocol revenue, total DC burn exceeded HNT emissions for the first time. Notwithstanding, Helium Mobile terminated the experiment to focus on achieving sustainable protocol economics through growing organic demand, not discretionary capital deployment. Data Credits continue to be burned for all carrier offload and network usage.

Cash Flow Dynamics

Path to sustained profitability: Excluding Discretionary DC Burn, operating cash flow losses decreased QoQ to -$1.9M quarterly as the protocol continues to demonstrate steady improvements to unit economics with the increasing data credit burn relative to network use. Key drivers for continued improvement include stable or improving carrier partnership economics, disciplined emission governance, and continued network utilization growth.

Treasury Statement Notables

	Q4 2025	Q3 2025	Q2 2025	Q1 2025	Q4 2024
Total Assets	**$ 3.0M**	**$ 4.8M**	**$ 4.7M**	**$ 5.8M**	**$ 11.2M**
HNT	$ 3.0M	*$ 4.8M*	*$ 4.7M*	*$ 5.8M*	*$ 7.9M*
MOBILE	-	-	-	-	-
IOT	-	-	-	-	$ 3.3M
SOL	$ 125	$ 209	$ 153	$ 126	-

Total Assets & Capital Deployment

Total assets were $3.0M at the end of Q4 ‘25, down 37.5% QoQ from $4.8M in Q3 and down 73.2% YoY from $11.2M in Q4 ‘24. The $1.8M quarterly decline reflects HNT price movements and capital deployment activities, including the $2.3M discretionary DC burn executed during the quarter. Treasury composition has simplified considerably over the past year, with IOT holdings ($3.3M in Q4 ‘24) fully depleted and the balance now consisting almost entirely of HNT.

Treasury Composition & Market Sensitivity

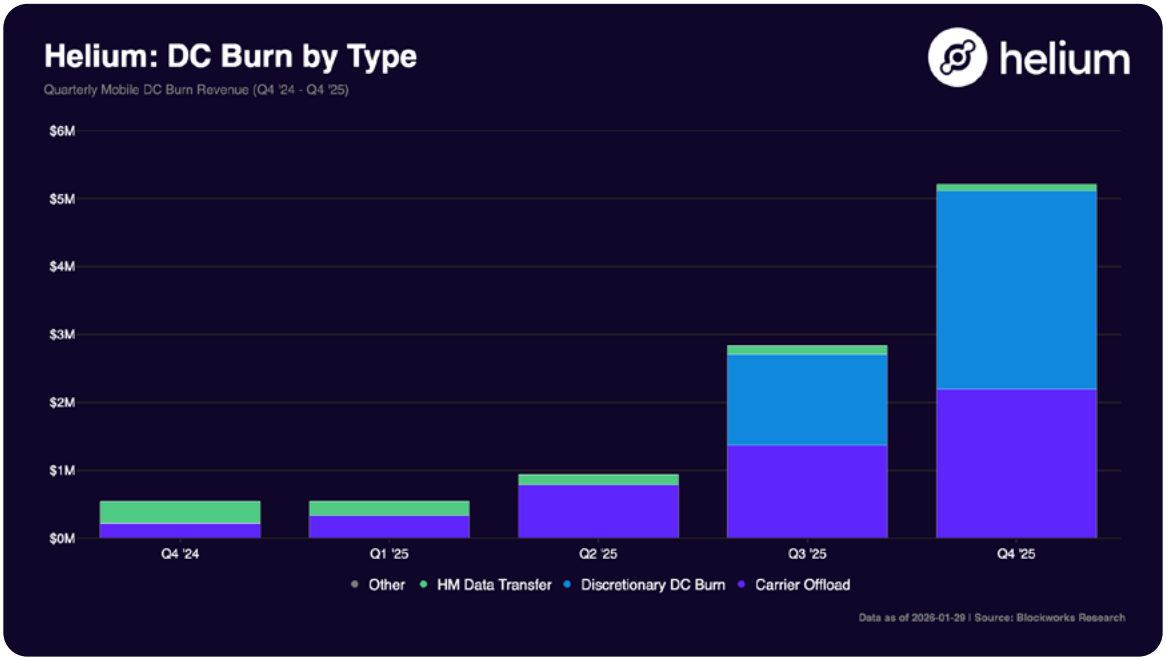
Treasury composition is concentrated in HNT at effectively 100%, with only negligible SOL holdings (~$125). This structure creates direct sensitivity to HNT token price, with treasury valuation moving in tandem with the market. The YoY decline from $11.2M to $3.0M reflects the combined impact of IOT depletion and HNT price movements.

Balance Sheet Implications

Treasury leverage to network value: Treasury value moves directly with HNT token performance, creating alignment between protocol success and asset coverage. The concentrated HNT position means treasury growth is tied to network adoption and token appreciation.

Revenue Drivers

Revenue Mix Evolution



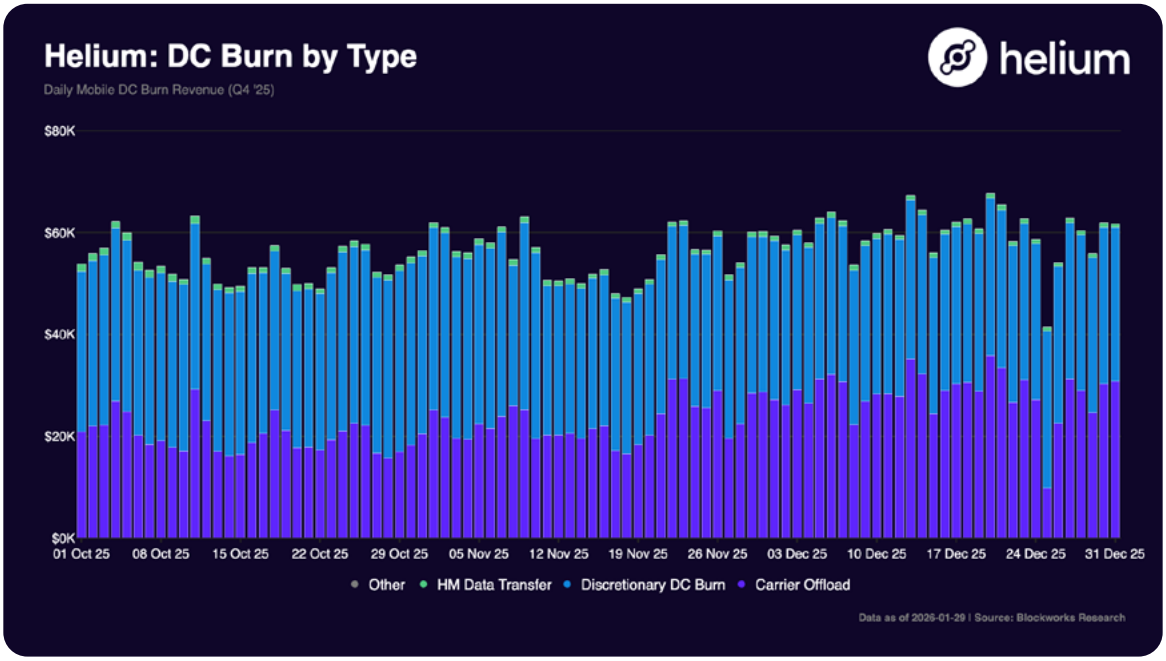
Q4 '25 extended the revenue growth trajectory, with Carrier Offload emerging as the core sustainable revenue driver.

Carrier Offload contributed $2.19M (42.1% of Mobile DC burn), growing 60.7% QoQ from $1.37M in Q3 '25 as carrier utilization scaled. This organic revenue stream, driven by actual network usage from carrier partnerships, represents the core economic engine of the protocol.

Helium Mobile Data Transfer added $94K (1.8%), a minor but growing component reflecting direct subscriber network usage.

Discretionary DC burn totaled $2.92M (56.1%) in Q4. As noted, this experimental program converting Helium Mobile subscriber revenue to token burn has been discontinued and will not contribute to future quarters. While included in Q4 totals, this revenue stream should not be viewed as indicative of ongoing protocol economics.

Intra-Quarter Momentum & Monthly Dynamics



Q4 '25 exhibited accelerating momentum, with December recording the highest monthly revenue in protocol history at $1.86M. The quarter's growth was driven primarily by Carrier Offload, which increased 10.6% MoM in November and 27.7% MoM in December, translating to a 41.1% increase across the quarter from $624K to $880K. This acceleration reflects deepening carrier utilization as partnerships mature and offload volumes scale.

Subscription revenue provided a stable foundation throughout the quarter, ranging from $950K to $1.02M monthly. This consistency demonstrates the predictability of the subscription model and its role as recurring revenue while carrier offload scales. Data revenue remained a minor contributor at ~$30K/month.

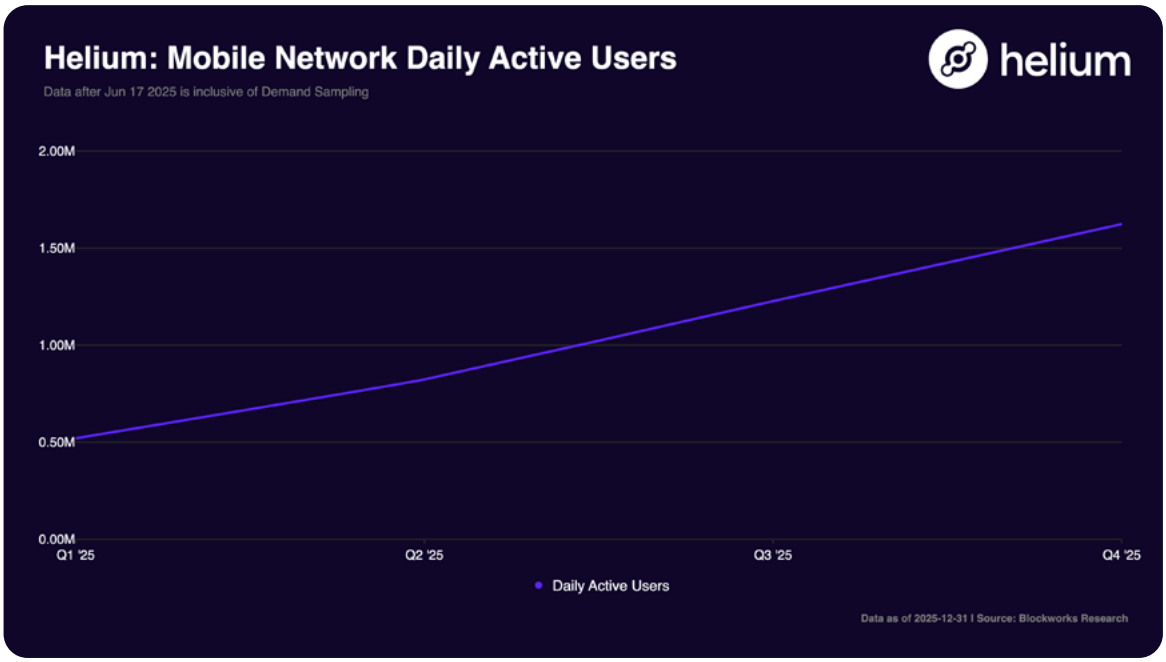
The revenue mix shift is notable: Carrier Offload represented 37% of October's revenue but grew to 47% by December, signaling the maturing carrier business becoming an increasingly material contributor alongside the subscription base.

IoT Scale and Share

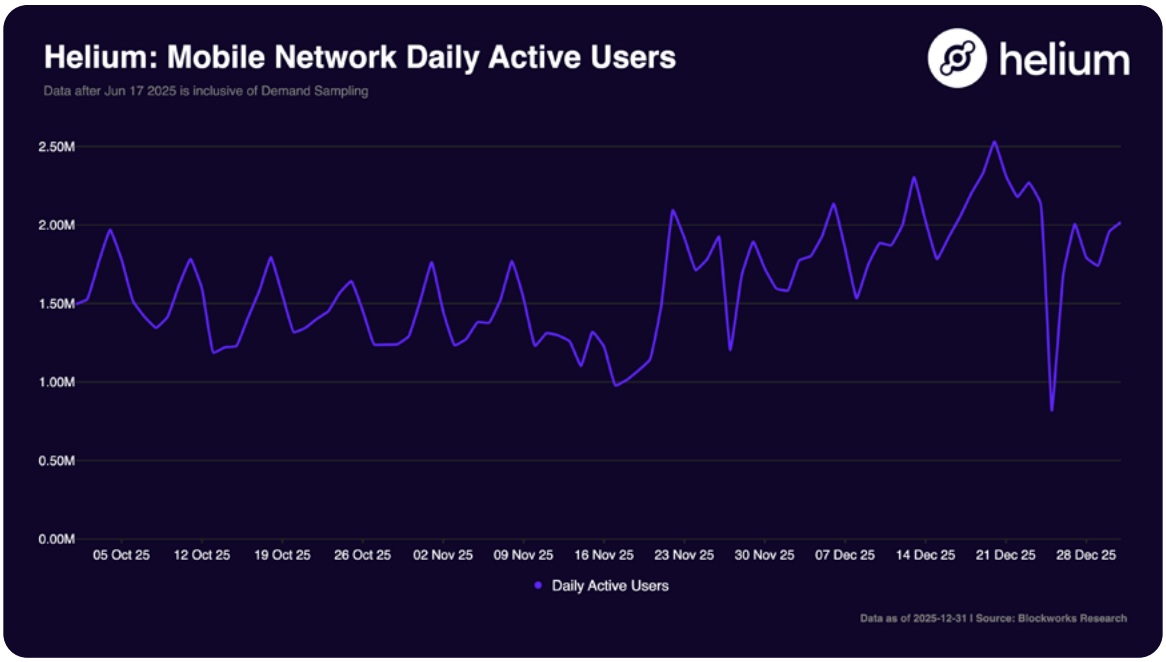
Q4 '25 IoT DC-burn revenue was ~$11.5K (~0.2% of total revenue), up 10.4% QoQ versus $10.4K in Q3. Daily IoT burn remained stable at approximately $125/day, indicating steady but low-throughput usage. IoT maintains a stable recurring revenue base from existing deployments. While currently representing a smaller share of total DC burn, future IoT expansion is positioned around enterprise integrations and differentiated use cases.

Network Analysis

Daily Active Users



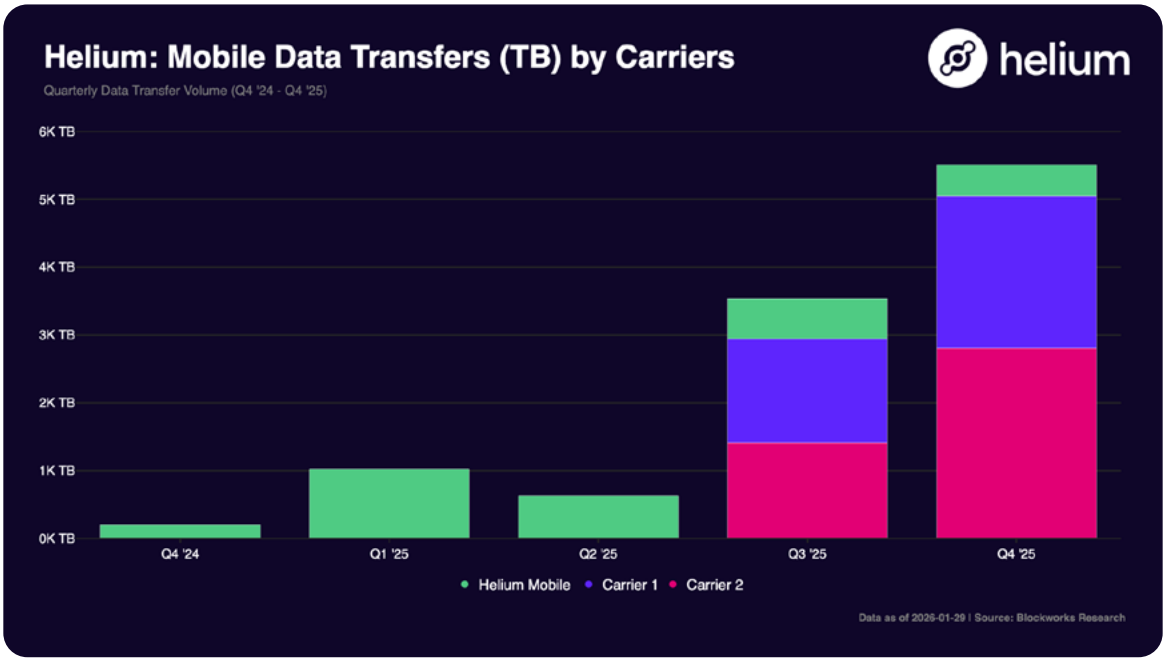
Q4 2025 marked a significant expansion in daily network engagement, with daily active users averaging 1.62M across the quarter, up 35.0% from 1.20M in Q3. The growth trajectory accelerated through the quarter, with December averaging 1.92M daily active users compared to 1.47M in October, representing 30.6% intra-quarter growth.



User engagement peaked on December 20 at 2.53M daily active users, the highest single-day total in network history. The consistent upward trend, from October's 1.47M average through December's 1.92M exit rate, reflects deepening carrier utilization and subscriber engagement as network coverage and quality improvements take hold.

The 47.7% increase in total data transfer outpaced the 35% QoQ expansion in daily active users, indicating that per-user data consumption is increasing as users engage more deeply with the network and carrier offload volumes scale. This user base expansion provides a foundation for continued revenue scaling as carrier partnerships mature and coverage extends into additional markets.

Carrier Performance and Distribution



Sequential Data Transfer Growth Accelerates

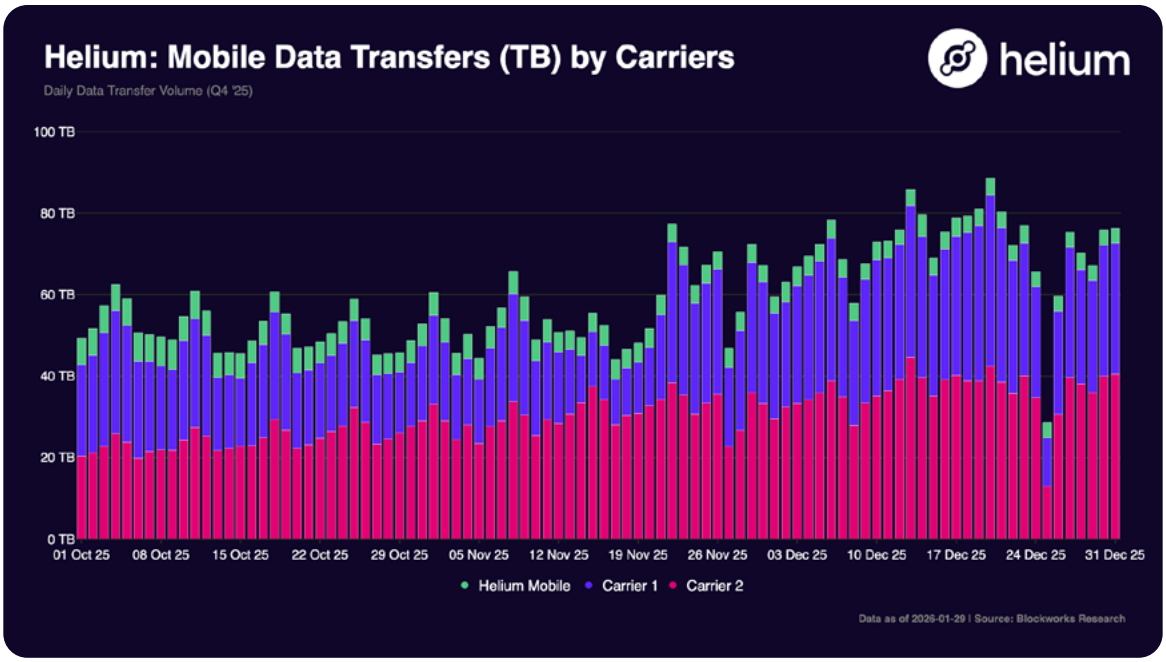
In Q4 2025, Helium's mobile network processed a record 5,513 TB of total data transfers (offload + service provider), marking a +47.7% increase from Q3's 3,732 TB. Carrier Offload alone reached 5,056 TB, up 60.8% from 3,143 TB in Q3. The sustained growth trajectory validates Helium's positioning as a scalable wholesale infrastructure partner for major U.S. carriers.

Carrier Volume Distribution

Q4 carrier breakout data reveals a notable shift in network composition:

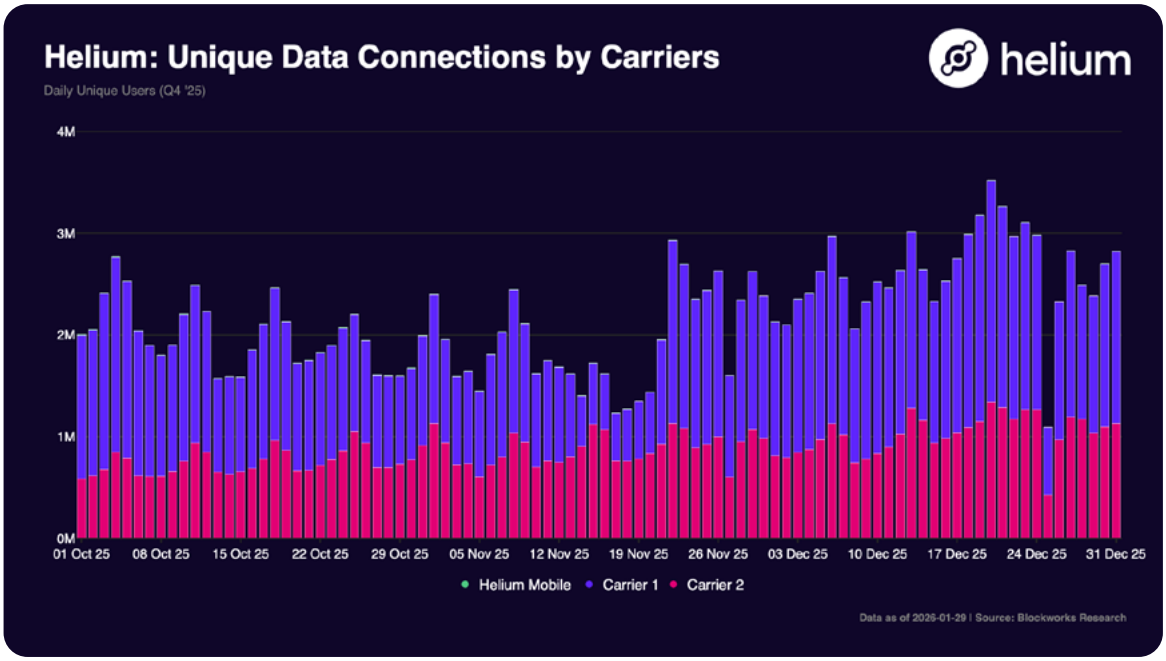
- Carrier 1: 2,809 TB (55.6% of offload volume)
- Carrier 2: 2,244 TB (44.4% of offload volume)

Carrier 1 surpassed Carrier 2 as the leading partner by data volume, reversing the Q3 composition where Carrier 2 led with 41.1% versus Carrier 1's 37.8%. The shift reflects accelerating integration depth and expanding coverage utilization. Together, the two tier-1 carriers accounted for 100% of identified carrier offload traffic, demonstrating Helium's established position as a preferred wholesale partner.



Total network traffic grew 47.7% from Q3 to Q4 (3,732 TB to 5,513 TB), with the carrier offload segment driving the majority of expansion. Helium Mobile service provider traffic contributed 457 TB, down 22.4% from 589 TB in Q3, reflecting the continued subscriber base concentration around subscription-based rather than data-heavy usage patterns.

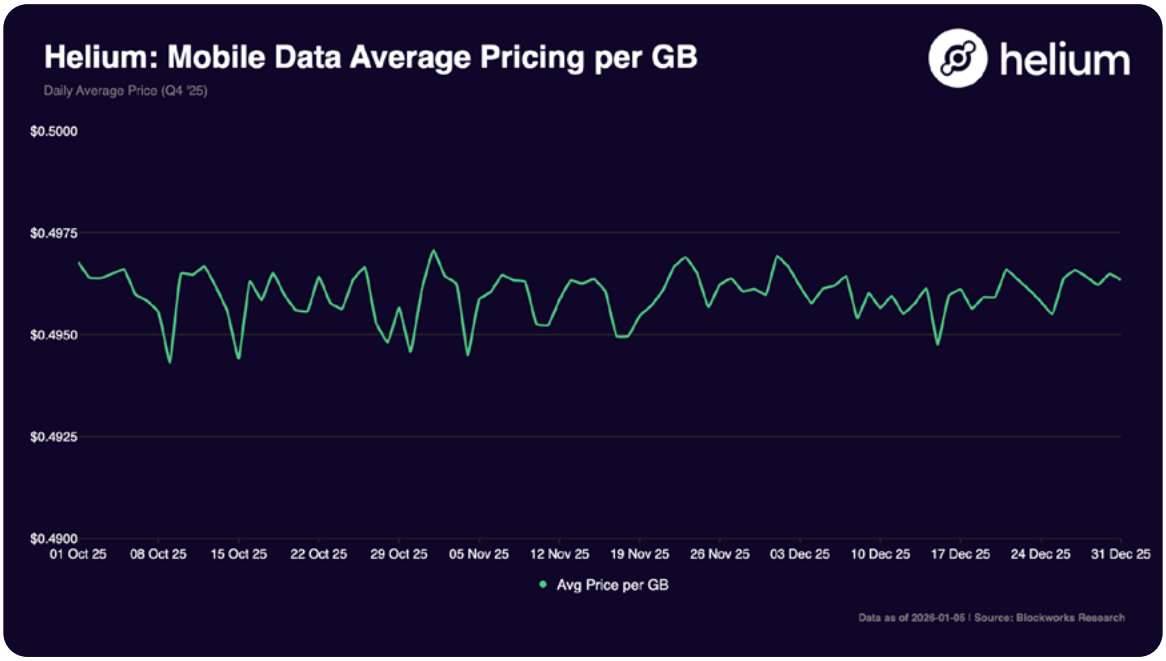
Connection Activity Distribution



Q4 ‘25 averaged 2.84M daily carrier offload connections across partnerships. Carrier 2 accounted for 1.69M connections (59.5%), while Carrier 1 contributed 1.13M connections (39.9%). The Helium Mobile Service Provider added 5,446 daily connections.

Carrier 1 connections transferred approximately 36 MB per connection compared to Carrier 2’s 19 MB per connection, suggesting different session characteristics or network deployment patterns between the partnerships. A “connection” represents a unique hotspot-device pair; growth in this metric can reflect either increased device activity or expanded hotspot coverage.

Network Pricing Stability

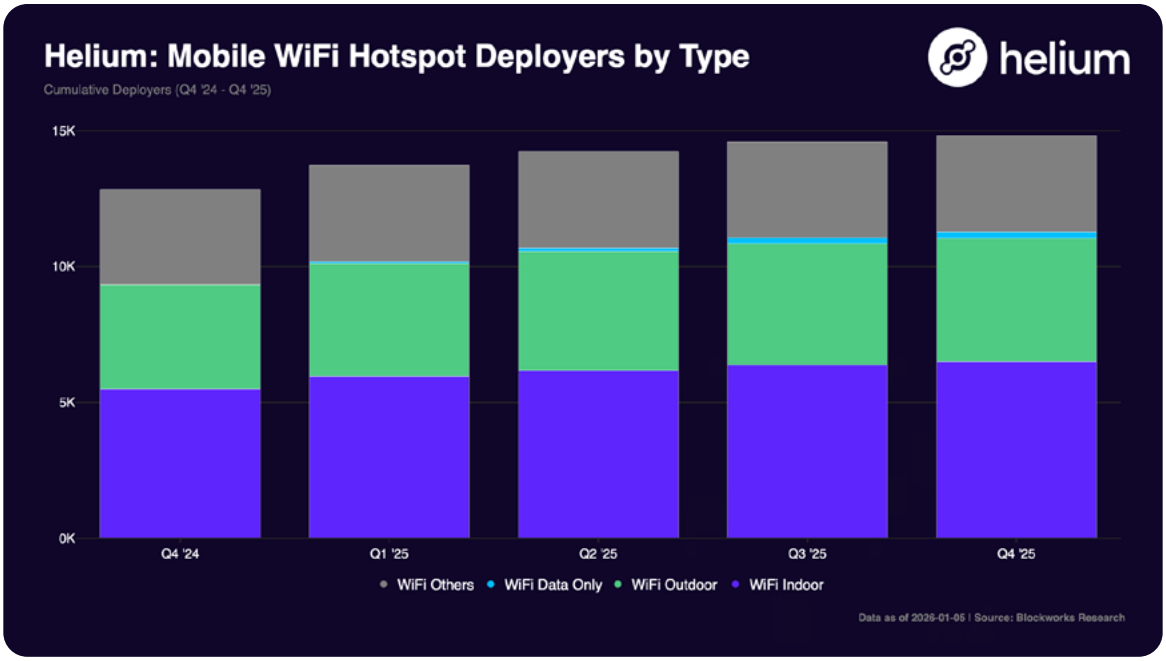


Helium's network pricing remained stable throughout Q4 at approximately $0.50/GB, consistent with Q3 levels. This rate reflects the HNT value paid to Hotspot deployers for Data Transfer, which fluctuates based on the prevailing HNT price. Helium Mobile continues to pay the network $0.50/GB for rewardable data by burning HNT and spending Data Credits at that rate.

HNT emissions are capped daily according to the protocol's emissions curve, with distribution split between Mobile and IoT deployers. The network targets $0.50/GB to Mobile deployers in data transfer rewards when HNT emissions and price support it. However, deployer rewards may deviate from the target rate due to emission constraints.

Mobile Hotspot Infrastructure Growth

Network Coverage and Deployer Base

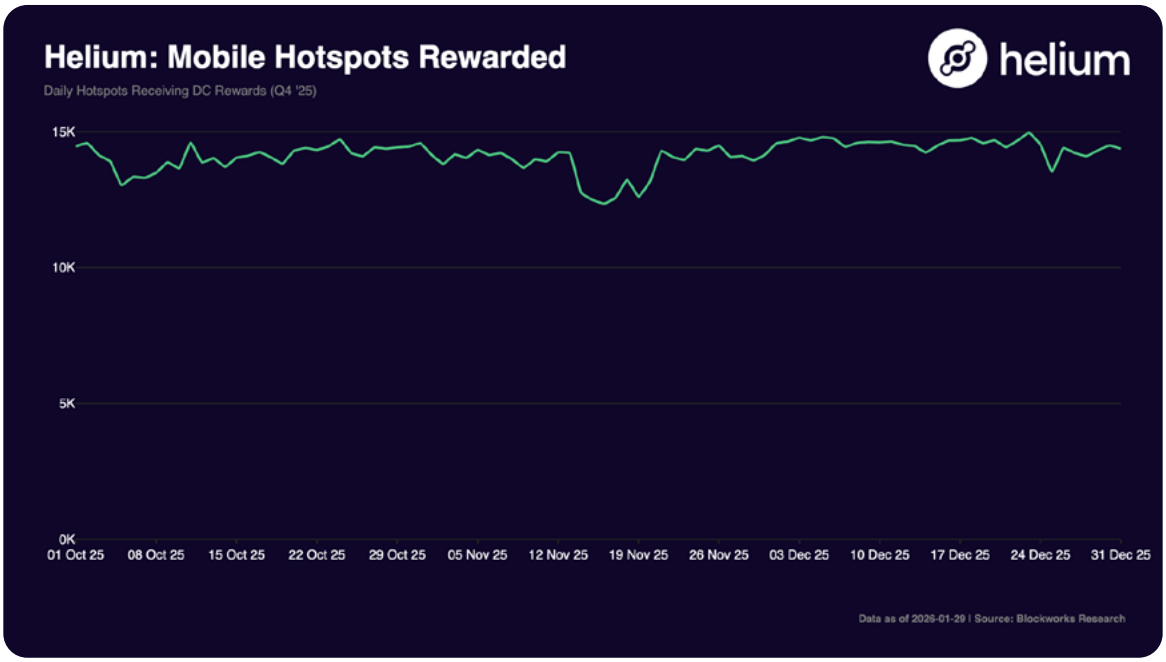


Q4 '25 ended with net new 14,827 total Mobile WiFi hotspot deployments across all types, up 1.5% QoQ from 14,605 in Q3. The deployment base expanded modestly across categories: Indoor hotspots reached 6,504 (+1.9% QoQ), Outdoor 4,531 (+1.3% QoQ), Other 3,557 (+0.1% QoQ), and Data-Only 235 (+20.5% QoQ). Indoor deployments comprise the largest share at ~44% of total hotspots, followed by Outdoor at ~31%, Other at ~24%, and Data-Only at ~2%. These hotspots are operated by 11,824 unique deployers.

The measured QoQ growth of 222 net hotspots indicates network maturation, with coverage density now sufficient to support accelerating data utilization. The 20.5% growth in Data-Only hotspots, though from a small base, signals continued interest in backhaul-focused deployment models.

Notably, slowing net deployment growth paired with surging utilization, 56.0% data transfer volume growth QoQ against only 1.5% hotspot growth, validates that the network has reached sufficient coverage density in key markets. Revenue per hotspot is increasing as demand scales faster than infrastructure, improving host economics without requiring material new capital deployment.

Hotspot Engagement and Utilization



Q4 '25 averaged ~14,144 daily Mobile rewardable entities actively serving data (earning DC transfer rewards), representing 76.9% (+14.4pp QoQ, +23% relative) of the ~18,397 total rewardable entities earning any form of Mobile rewards during the quarter. This substantial utilization expansion, up from 62.5% in Q3, validates that network demand is efficiently absorbing deployed capacity, with over three-quarters of rewardable entities now actively routing traffic.

A rewardable entity represents a single on-chain identity that may encompass multiple physical access points or hotspots. For example, a large brownfield deployment at an airport may have hundreds of access points operating behind a single rewardable entity. The 120,000+ hotspots reflect individual access point counts, which exceed the rewardable entity figures cited here.

The utilization rate improvement from 62.5% to 76.9% represents meaningful operational leverage: more rewardable entities transitioning from coverage-only rewards to data-serving status, improving aggregate economics without requiring proportional infrastructure expansion. The remaining ~23% of rewardable entities earning coverage rewards without data transfer represent latent capacity available to absorb continued demand growth.

Product & Ecosystem Updates

Awards & Recognition

- Fierce Network Innovation Award: Helium Mobile won the 2025 Fierce Network Innovation Award for Mobile Evolution, recognizing breakthrough contributions to mobile network infrastructure.
- WCA Social Contribution Award: Helium received the Social Contribution Award from the Wireless Communications Alliance, acknowledging the network's impact on connectivity access and community-driven deployment.
- WBA Best Wi-Fi Innovation Award: Helium won the Best Wi-Fi Innovation Award at the Wireless Broadband Alliance (WBA) Awards 2025, validating the protocol's WiFi offload technology and decentralized infrastructure model.
- a16z crypto Recognition: a16z crypto spotlighted Helium as the leading DePIN example in telecom: "Helium[...] is one of the defining DePIN companies and the first at-scale decentralized telecom network."

Community Deployments

From universities to wine country, the community expanded the Network across diverse geographies and use cases:

- Sausalito & Wine Country: Community deployers brought connectivity to Northern California's scenic coastal and vineyard regions.
- Pine Mountain Club: Coverage expansion into California's mountain communities, demonstrating network reach in challenging terrain.
- Universidad del Sagrado Corazón: Network expansion in Puerto Rico, extending Helium's presence in Caribbean educational institutions.

Product Updates

Mobile: Demand sampling data is now live on Helium World. New Hotspots added to the Network will automatically start serving traffic for major US carriers (for free) so they can learn which locations reach a lot of users and should be switched to paid

Hardware & Deployment: Mambo WiFi Brazil Partnership: Helium announced a joint venture with Mambo WiFi to bring people-powered connectivity to Brazil. Mambo's 40,000 existing access points will serve as the foundation for

carrier offload and network expansion. An International Waitlist also launched for organizations interested in bringing Helium to their countries.

Helium Plus: A major milestone, Helium Plus enables even more people to join the Network with existing Wi-Fi. No new hardware needed. This opens the door to massive expansion by lowering the barrier to entry.

UI/UX: The home for Hotspot deployers, Helium World, got a major upgrade:

- Wallet Views: Track an entire Hotspot fleet or zoom into your own. See locations, stats, and balances, the first step toward a full logged-in experience where you can send HNT tokens, onboard Hotspots, and manage it all in one place.
- Reimagined Landings: The landing page and sidebar have been reworked to highlight the most important stats. Navigation is smoother across desktop and mobile.
- Refreshed Navigation: Subnetwork navigation and map layers (like data traffic) are now easier to access.

Incentives & Emissions

- **HIP 148: Reallocate Mobile Mapping Rewards:** Eliminated Mobile Mapping rewards due to gaming issues, low verification adoption (<5%), and limited utility. The 20% mapping allocation was redistributed: 10% to Service Provider Pool and 10% to Data Transfer Pool for deployers. Service Provider tokenomics were simplified by consolidating Oracle Operator rewards (4%) and emitting full allocation directly to Helium.

Closing Summary & Outlook

Helium continues to trend towards sustained profitability, with Q4 Carrier Offload DC burn of $2.3M and total expenses of $4.2M, a 53% QoQ increase and 46% QoQ decrease respectively. Excluding any discretionary DC burn by Helium Mobile, this 55% revenue-to-emissions ratio, up from 17% in Q3 and 2% a year ago, validates the protocol's core unit economics.

Total revenue of $5.2M also includes $2.9M in discretionary DC burn, an experimental program that has since been discontinued.

Network infrastructure absorbed the increased demand efficiently. Hotspot utilization rose to 76.9% from 62.5% in Q3, while the deployer base grew only 1.5%. Data transfer volume increased 47.7% to 5,513 TB. Daily active users averaged 1.62M (+35% QoQ), peaking at an all-time high of 2.53M on December 20.
Treasury assets ended the quarter at $3.0M, down 37.5% from $4.8M in Q3. The decline reflects HNT price movements.

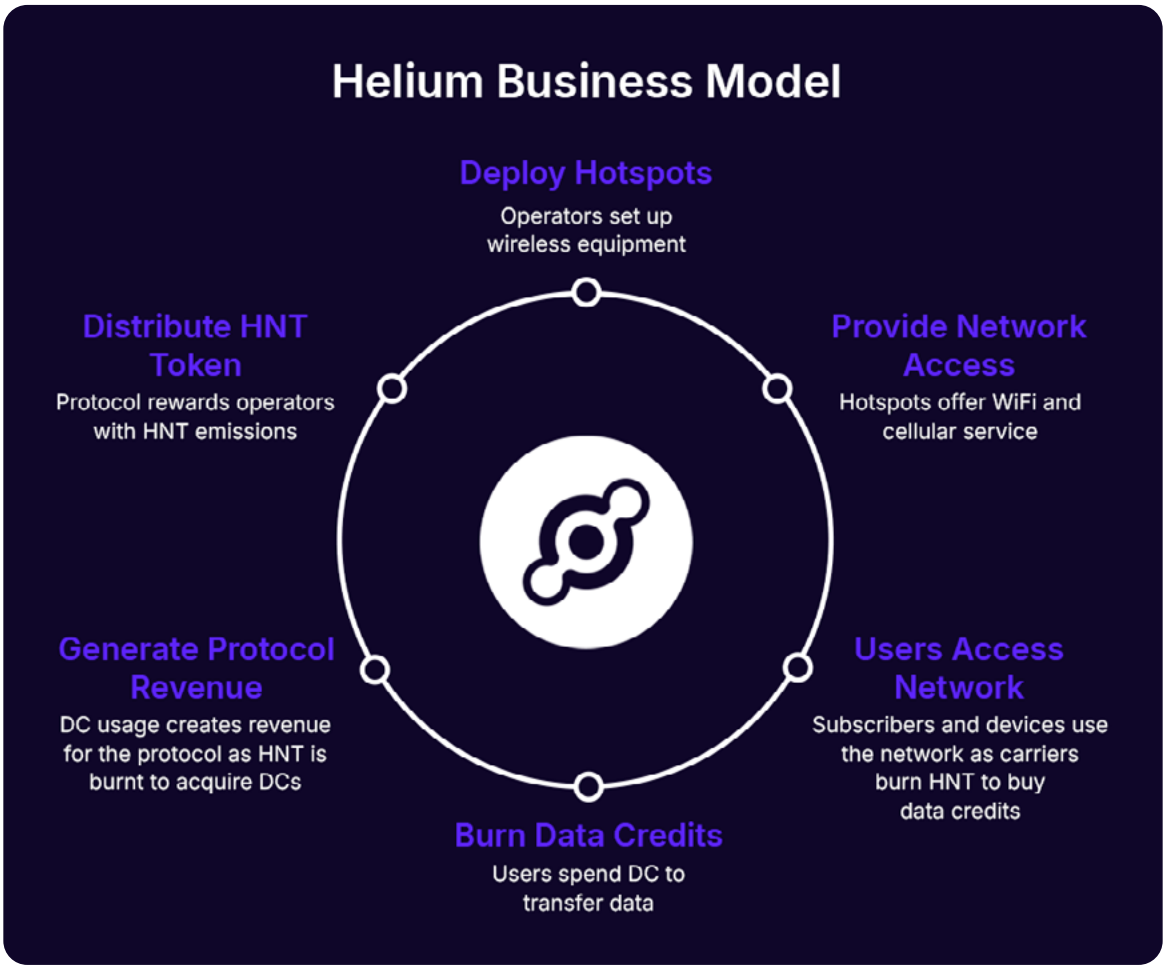
The protocol enters 2026 with organic network revenue demonstrating sustainable growth. With Carrier Offload scaling 53% QoQ and network utilization continuing to increase, Helium is positioned to build on this foundation as carrier partnerships deepen and coverage expands.

Appendix

What is Helium?

Helium is a decentralized wireless network protocol that enables individuals and organizations to deploy and operate wireless infrastructure in exchange for cryptocurrency rewards. The network operates through a dual-token system: HNT (the protocol's native token) and Data Credits (DC), which are burned to pay for network usage. Helium's infrastructure supports multiple wireless networks with Mobile (5G/cellular) being the primary consumer of data as of Q4 2025 and IoT (LoRaWAN) as the legacy network with lower data consumption.

Business Model Overview



Revenue Model

Helium generates protocol revenue through Data Credit (DC) burn. Network users (whether retail subscribers, carrier partners, or IoT device operators) must burn DC to access network services. DCs are created by burning HNT at a fixed exchange rate ($0.00001 per DC), creating deflationary pressure on the HNT token supply as network usage increases. Protocol revenue is measured in USD-equivalent DC burn.

Cost Structure

The protocol's primary expense is HNT token emissions, which are distributed to network participants as incentives:

- **Data Transfer Rewards:** Paid to hotspots that actively route user data
- **Proof-of-Coverage Rewards:** Paid to hotspots that validate network coverage

Emissions follow a predetermined schedule but can be adjusted through governance proposals, resulting in the vast majority of emissions going to Data Transfer Rewards. The USD value of emissions fluctuates with HNT token price.

Path to Profitability

Helium achieves profitability when DC burn revenue exceeds HNT emission costs. As of Q4 2025, revenue covered 55% of emissions (excluding discretionary DC burn), up from 17% in Q3, indicating improving unit economics as the network scales.

Helium Mobile (Retail MVNO)

Helium Mobile operates as a Mobile Virtual Network Operator (MVNO) offering direct cellular service to consumers. Revenue is generated through:

- **Subscription Fees:** Fixed monthly plans ($15-$30/month)
- **Data Transfer Charges:** Usage-based fees for data consumed on the network, included in Carrier Offload revenue numbers

Carrier Offload (Wholesale)

Carrier Offload represents partnerships with traditional telecommunications carriers who route traffic through Helium's decentralized infrastructure. Revenue is generated on a per-gigabyte basis as carriers burn DC to access network capacity. This wholesale channel provides high-volume, lower-margin revenue compared to retail subscriptions.

IoT Network

The IoT network supports low-power, long-range connectivity for Internet of Things devices using LoRaWAN technology. Revenue is generated through DC burn for data transmission. As of Q4 2025, IoT represents <1% of total protocol revenue.

Network Infrastructure

Hotspots

Hotspots are wireless access points deployed by individuals and organizations that provide network coverage. Types include:

1. **Indoor Mobile Hotspots:** WiFi-based cellular offload in homes and businesses
2. **Outdoor Mobile Hotspots:** Macro-coverage for street-level connectivity
3. **Data-Only Hotspots:** Backhaul-only deployments without RF coverage requirements

Hotspots earn rewards in two ways:

1. **Coverage Rewards:** Paid for providing validated network coverage (Proof-of-Coverage)
2. **Data Transfer Rewards:** Paid for actively routing user traffic

Network Quality Metrics

The protocol tracks key performance indicators including:

- **Download/Upload Speeds:** Median throughput delivered to end users
- **Latency:** Round-trip time for data transmission
- **Utilization Rate:** Percentage of hotspots actively serving data traffic
- **Coverage:** Geographic availability of network services

Key Terminology

DC Burn: The process of destroying Data Credits to pay for network usage. DC burn is the protocol's primary revenue metric and is measured in USD equivalent.

HNT: Helium Network Token, the protocol's native cryptocurrency used for governance, staking, and converting to Data Credits.

Data Credits (DC): Non-transferable tokens created by burning HNT, used exclusively to pay for network services. Fixed at $0.00001 per DC.

Emissions: HNT tokens distributed to network participants as incentives. Measured in USD-equivalent based on HNT token price.

MVNO: Mobile Virtual Network Operator - a wireless service provider that does not own the underlying network infrastructure but leases capacity from traditional carriers.

Carrier Offload: The practice of traditional telecommunications carriers routing traffic through alternative networks (in this case, Helium) to reduce congestion and infrastructure costs.

SubDAO: Sub-Decentralized Autonomous Organization - specialized networks operating within the Helium ecosystem (Mobile, IoT) with independent governance and economic parameters.

Proof-of-Coverage (PoC): A consensus mechanism where hotspots validate their physical location and coverage provision through cryptographic challenges.