

DePIN on Solana: A New Way to Build the Internet Powered by You

Ever groaned at your sky-high internet bill or wondered why your neighborhood still isn't properly mapped? I know I have. What if I told you there's a way to fix these problems, and make a little money while you're at it?

Decentralized Physical Infrastructure Networks (DePIN) refer to blockchain-powered systems that coordinate and incentivize individuals to deploy, maintain, and operate real-world infrastructure, such as wireless networks, sensor arrays, compute hardware, and storage systems, using token-based rewards.

Let's dive into what DePIN is, why Solana's the perfect home for it, and how you can get involved.

What Is DePIN, and Why Should You Care?

Imagine a world where you don't have to rely on massive corporations to get WiFi, maps, or computing power. That's the promise of DePIN. Instead of big tech owning all the hardware and pocketing the profits, DePIN lets regular people like you and me contribute devices, think WiFi hotspots, dashcams, or even your laptop's unused GPU—and get paid in crypto tokens for it.

Classifications Of DePIN

1. Compute Networks

Compute networks provide decentralized computing power for rendering, AI training, or general-purpose cloud computing.

- **Examples:**
 - **Render Network** - GPU rendering for 3D/AI

2. Wireless/Bandwidth Networks

Wireless/Bandwidth Networks refer to decentralized systems where individuals or communities **provide internet connectivity or bandwidth infrastructure**, such as WiFi hotspots, 5G.

Examples:

- **Helium** - LoRaWAN & 5G network

Why Solana Is DePIN's Secret Sauce

DePIN projects rely on **massive volumes of microtransactions**—whether it's paying someone for each meter they map, every second of bandwidth shared, or a burst of GPU compute. To support this, they need a blockchain that's **fast, cheap, and built for scale**—and **Solana checks all the boxes**.

Solana the go-to chain for DePIN:

- **Speed That Scales**

Solana handles **65,000+ transactions per second (TPS)** with sub-second finality. This high throughput ensures that DePIN apps can run smoothly.

- **Ultra-Low Fees**

Average transaction fees on Solana are around **\$0.00025**—that's **less than a cent**. This is critical for DePIN models where users are rewarded in real time for small actions.

Solana's low latency and affordability let DePIN projects run smoothly. Whether you're a developer building the next big thing or a user earning tokens, Solana makes it seamless.

Here's how you can jump in:?

1. Host a WiFi hotspot-to expand internet access.

2. Share your GPU's power- for AI or rendering tasks.
3. Drive with a dashcam- to map streets in real-time.

Three Solana-Powered DePIN Projects Changing the Game

1. Helium: The People's Wireless Network

Helium lets you set up small hotspot devices to provide 5G and IoT (Internet of Things) coverage in your area. Plug in a hotspot, share wireless signals, and earn \$MOBILE tokens for mobile coverage or \$HNT for broader network contributions.

Helium IoT (\$HNT)

Low-power, long-range network for devices like sensors and trackers. Deploy **LoRaWAN** hotspots and earn \$HNT when data is transmitted.

Helium Mobile (\$MOBILE)

Decentralized **5G network** powered by small-cell hotspots. Earn \$MOBILE for providing coverage. Helium started on its own blockchain but moved to Solana in 2023 for better scalability and lower costs. Now, it's easier and cheaper to build wireless networks that rival traditional telecoms.

Website:(<https://helium.com>)

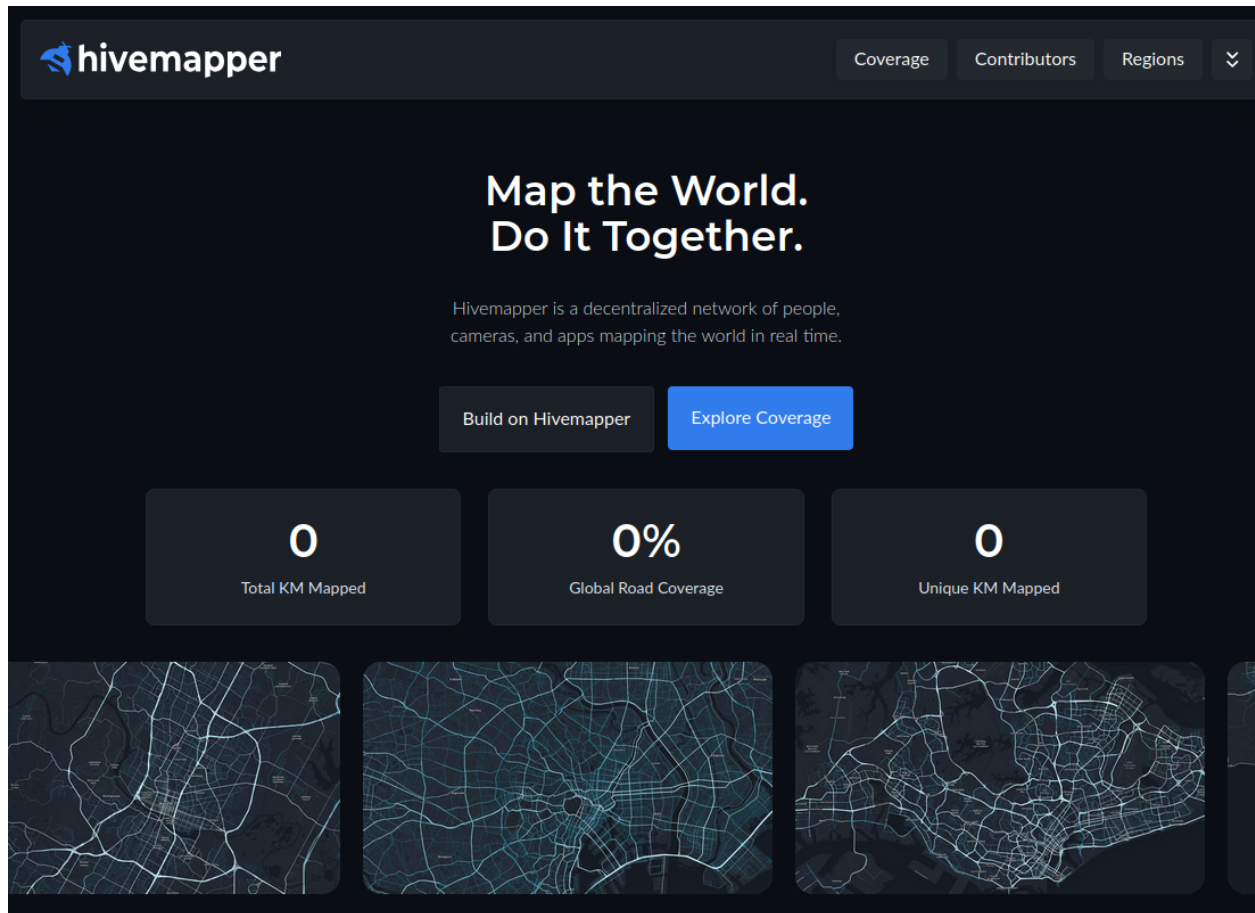


2. Hivemapper: Mapping the World, One Drive at a Time

Hivemapper is like Google Maps, but powered by everyday drivers. Attach a specialized dashcam to your car, drive around, and collect real-time street imagery. That data builds a constantly updated global map, and you earn \$HONEY tokens for your contributions.

Unlike corporate-controlled maps that can lag behind, Hivemapper's data is fresh and user-driven, perfect for logistics, urban planning, or even autonomous vehicles.

Website:(<https://hivemapper.com>)



3. Render Network: Decentralized GPU Power for Creators

The Render Network lets artists, filmmakers, and AI developers tap into a global pool of GPUs for rendering high-quality visuals or running complex computations. Contributors share their unused GPU power and earn \$RNDR tokens.

Originally on Ethereum, Render hit roadblocks with high fees and slow transactions. After moving to Solana, it's now faster and cheaper to process rendering tasks, and developers can roll out new features quickly thanks to Solana's robust tools.

Website: (<https://render.x.io>)

Why DePIN Beats the Old Way

DePIN	VS	Web2
1. DePIN: You earn tokens for contributing profits.		Web2: Corporations keep all the profits.
2. DePIN: Anyone with a device can join infrastructure.		Web2: Only big companies build the infrastructure.
3. DePIN: Grows where people need it most profitable.		Web2: Only expands where it's profitable.
4. DePIN: Fast, open, and affordable.		Web2: Slow, closed, and pricey.

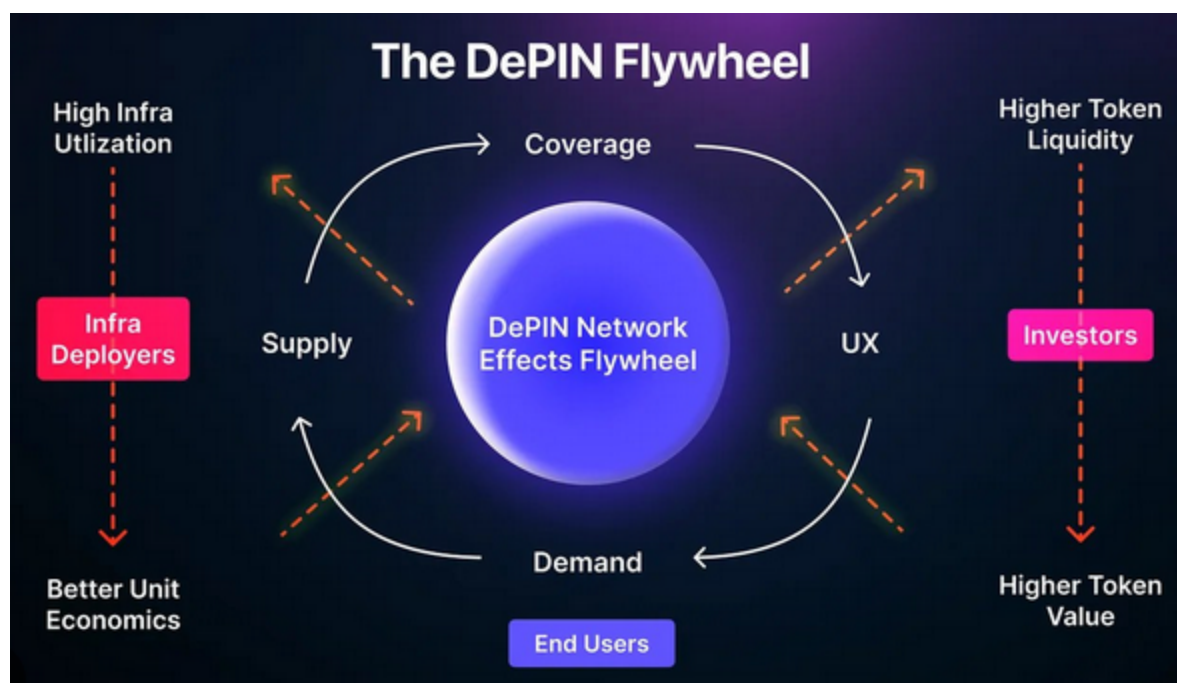
DePIN doesn't wait for a boardroom to greenlight progress. It grows organically, from rural towns to bustling cities.

The DePIN Flywheel: A Self-Sustaining Revolution

DePIN projects have a built-in growth engine:

1. More people join and contribute devices.
2. The network gets stronger and more reliable.
3. Services improve, attracting more users.

It's a cycle that feeds itself, powered by community participation. The more we all pitch in, the better it gets.



Ready to Join the DePIN Movement?

Feeling inspired? Here's how you can get started:

Helium: Set up a hotspot and help build a global wireless network. Check (<https://helium.com>).

Hivemapper: Grab a dashcam and start mapping your city. Check (<https://hivemapper.com>).

Render Network: Share your GPU power or use the network for rendering. Check (<https://render.x.io>).

Explore More: Check out Solana's ecosystem or DePIN-focused platforms like (<https://iotex.io>) or (<https://messari.io>) to discover other projects.

You don't need a fancy setup, just a device and a desire to be part of something bigger.

Final Thoughts

DePIN on Solana is more than a tech trend; it's a movement to rethink how we build the internet. By putting power (and profits) back in the hands of everyday people, it's making connectivity, mapping, and computing more accessible and fair. Whether you've got a hotspot, a dashcam.

So, what are you waiting for? Jump into DePIN and help build an internet that works for everyone you.