

TON Ecosystem: 2024 Year-End Report

Introduction

Dear TON Partners,

The year 2024 was a special one for the TON Ecosystem. TON became a top-10 blockchain, with its airdrops ranking among the year's most impactful crypto events, reaching tens of millions of users globally. This progress has laid the foundation for TON's mission to put crypto in every pocket.

TON Mini Apps have emerged as a key tool for onboarding Telegram users into the TON ecosystem. They provide seamless, mobile-first access to Web3 services within a platform users already interact with daily. This integration lowers barriers to entry and enables a gradual, user-friendly introduction to crypto. These developments have positioned TON as a leading entry point for new users entering the Web3 space as a whole.

2024's achievements are the culmination of years of dedicated work. This report provides an objective summary of the TON Ecosystem's key accomplishments this year, offering a data-driven assessment of its impact.

Key milestones

- TON Mini Apps: Surpassed 200 million total users.
- TON DeFi: Achieved a 55x TVL growth at its peak.
- USDt on TON: Recorded the fastest emission speed in Tether's history.
- W5 Wallet: Introduced gasless transactions.
- The Open League: Launched a large-scale incentive program for TON projects and users.
- Telegram and TON Integration: Enabled Stars, Gifts, and Ads on the platform.
- Society DAO: Marked a major step in decentralization.

Numbers of the year

36.2M

new on-chain wallets
were created

1.8M

daily active wallets
at peak

16M

monthly active
wallets at peak

\$1.4B

USDt-TON circulation,
Tether's fastest-growing
asset

4.8M

active DEX traders,
reflecting a 120x
growth

\$60M

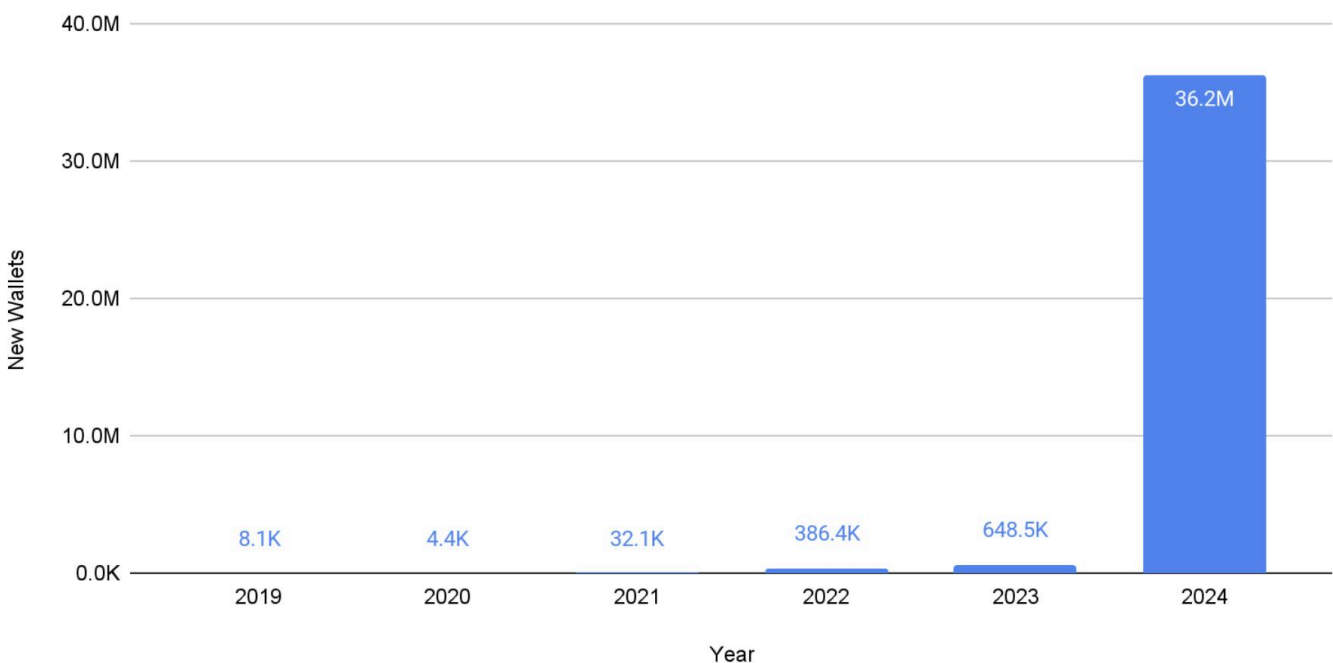
earned in Telegram
Stars by over 1,700
Mini App developers

TON in 2024: Key growth drivers

TON achieved significant growth in 2024, surpassing 100 million Toncoin addresses. Monthly active wallets increased 100-fold, from 100,000 in 2023 to over 10 million, while daily active users reached 1.8 million.

Over the year, TON added 36.2 million new on-chain active wallets, a 55-fold increase from the previous year.

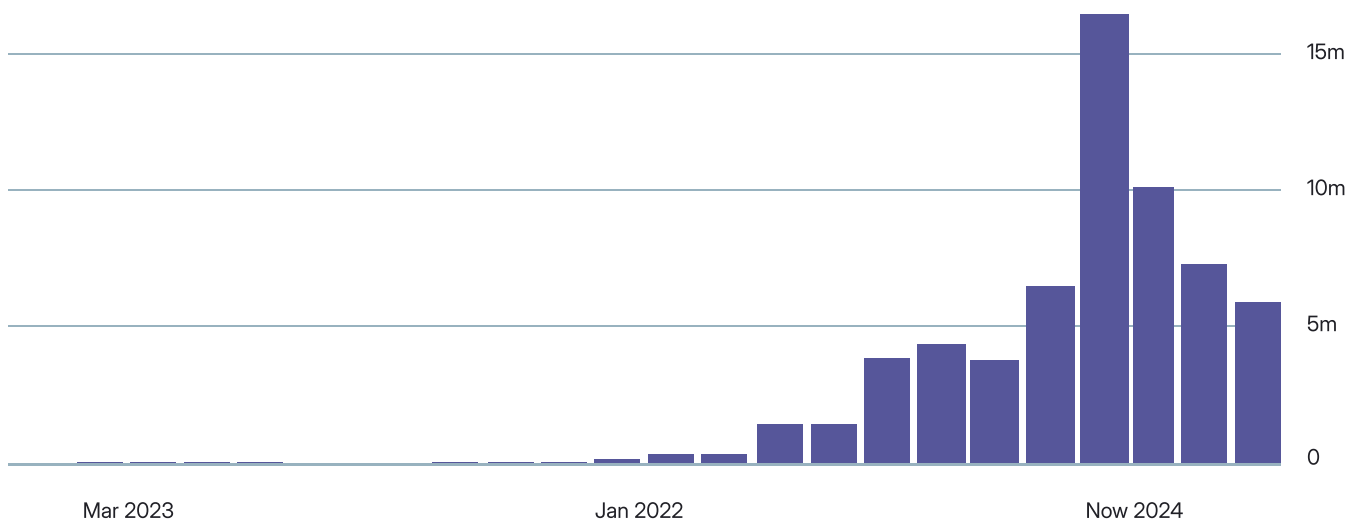
New On-chain Active Wallets Per Year



Source: <https://dune.com/queries/4471909/7478889>

Following a peak in September, monthly active wallets stabilized at approximately 7 million.

Monthly active wallets

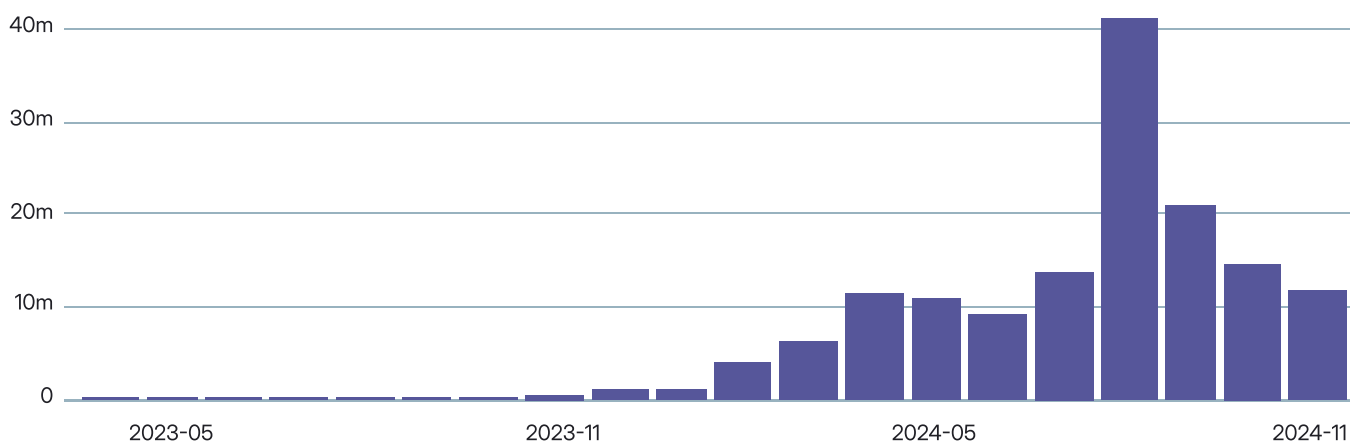


Source: <https://dune.com/queries/4489310/7504530>

TON demonstrated its ability to handle substantial workloads, managing up to 40 million active addresses (user wallets and smart contracts) per month.

Active addresses

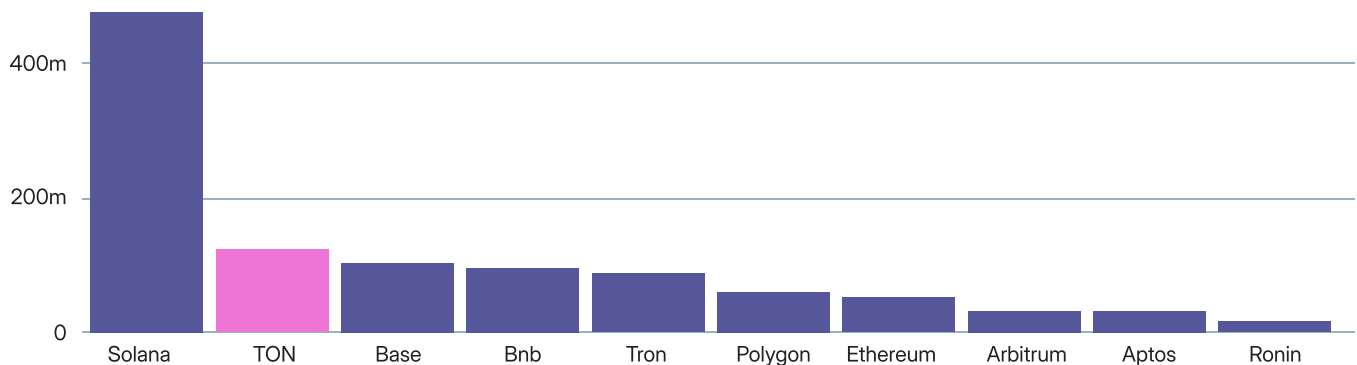
Active address – a wallet or smart contract that sent at least one transaction



Source: <https://dune.com/queries/4489339/7504569>

TON surpassed Base, BNB, and others in active addresses and outperformed Ethereum in daily active wallets almost every day in June 2024.

Top 10 blockchains by active addresses



Source: <https://dune.com/queries/4475679/7484433>

This huge user base growth was driven by three key factors: **the launch of USDt on TON**, the expansion of TON's DeFi ecosystem, and the rise of **social games** as a user acquisition model.

USDt

USDt on TON was officially launched in April 2024, enabling Telegram's 950 million users to access seamless cross-border payments. The announcement was made at TOKEN2049 by Pavel Durov, CEO and Founder of Telegram, Paolo Ardoino, CEO of Tether, and Andrew Rogozov, CEO of TOP and Wallet.

Since its launch, USDt-TON has become the fastest-growing asset in Tether's history. By September 2024, with backing from Tether, USDt-TON was supported by over 100 platforms globally, including centralized exchanges, payment systems, and infrastructure providers such as Binance, OKX, Copper and MoonPay.

In just eight months, USDt-TON surpassed \$1.2 billion in net circulation, facilitated 26 million transactions across 3.5 million wallets, and achieved a total transaction volume of \$39.6 billion, becoming the 3rd largest blockchain in net USDT circulation after Ethereum and TRON.

USDt on TON: Total transactions, volume and wallets

26,349,854

USDt transactions

3,490,309

USDt senders

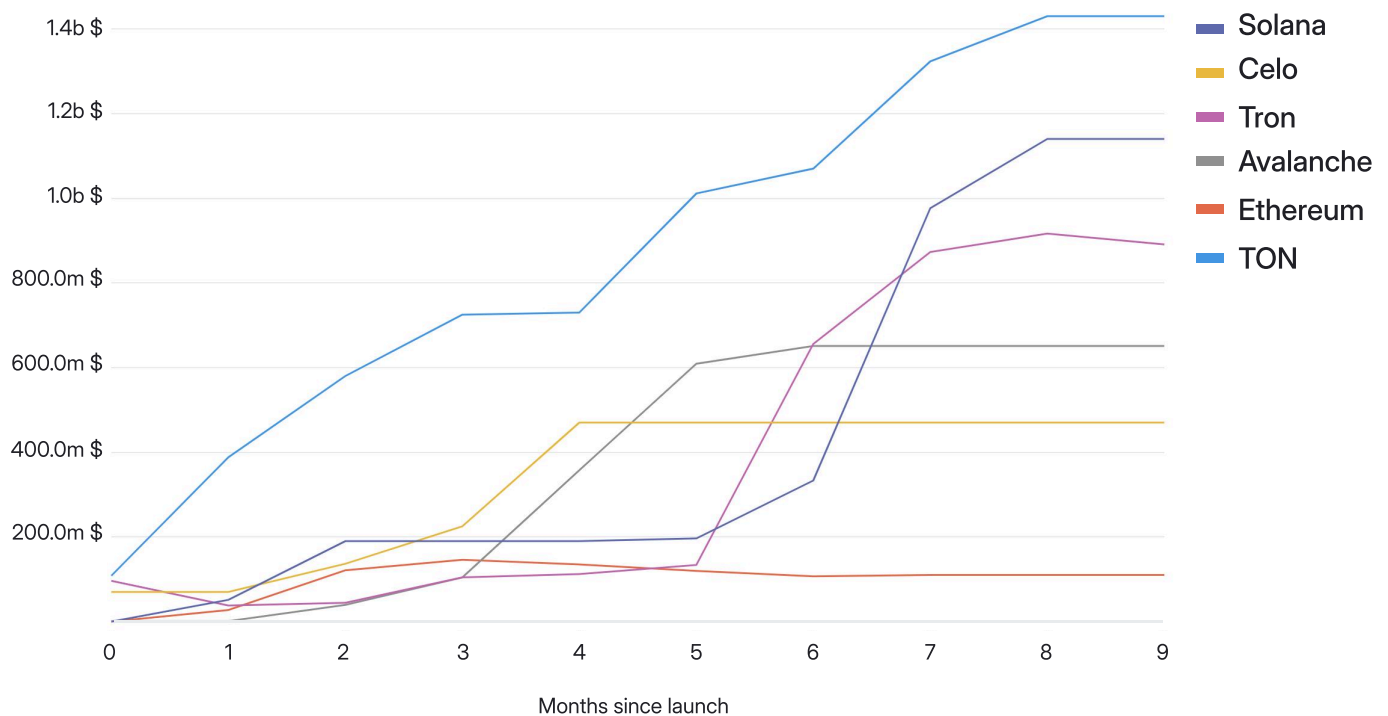
\$39,632,633,203

USDt volume, USD

Source: https://dune.com/ton_foundation/ton-yoy









Source: <https://dune.com/queries/4475317/7483913>

USDt supply growth comparison between chains



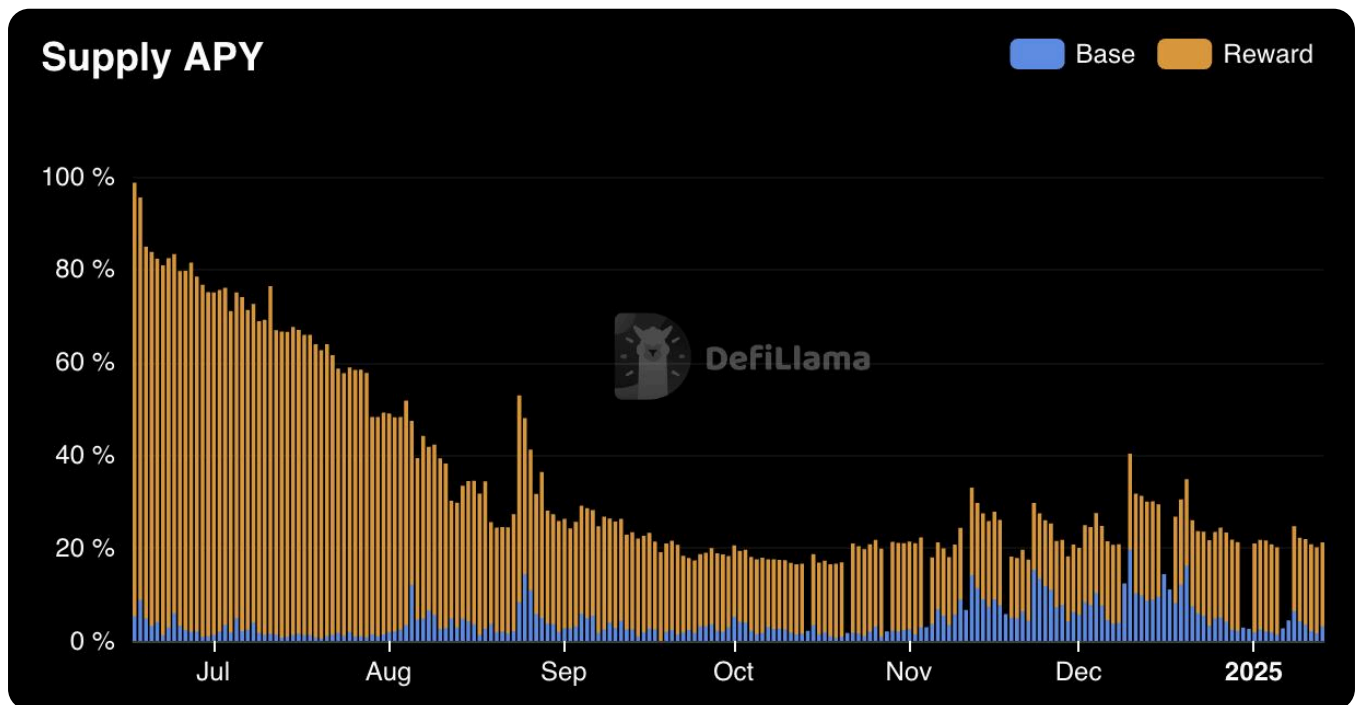
Source: https://dune.com/ton_foundation/ton-and-others-usdt-supply

This growth was supported by the launch of TON Foundation's 11 million Toncoin rewards program for USDt users in April 2024, which included a \$30 million TON/USDt liquidity pool boost, a 5 million Toncoin DeFi incentive initiative as well as 5 million Toncoin given to users depositing USDt to Wallet's Earn campaign. This campaign focused on bringing liquidity to TON/USDt, stTON/USDt, and tsTON/USDt pools, making swaps more accessible for users. At its peak, DeDust and STON.fi pools ranked #1 and #4 across all blockchains, with a combined liquidity exceeding \$500 million.

Pool	Project	Chain	TVL ↕	APY ? ↕
1 ↗ TON-USDt	 DeDust		\$323.36m	75.57%
2 ↗ WBTC-WETH (0.3%)	 Uniswap V3		\$320.15m	3.62%
3 ↗ ETH-STETH	 Curve DEX		\$239.99m	1.59%
4 ↗ TON-USDt	 STON.fi		\$214.9m	72.63%

Source: DefiLlama as of 2 July 2024

During the campaign, these pools offered LPs some of the highest APY rates, ranging from 20% to 100%. While most of the returns came from incentives, the base APY, driven by significant trading volume, ranged between 2% and 10%.



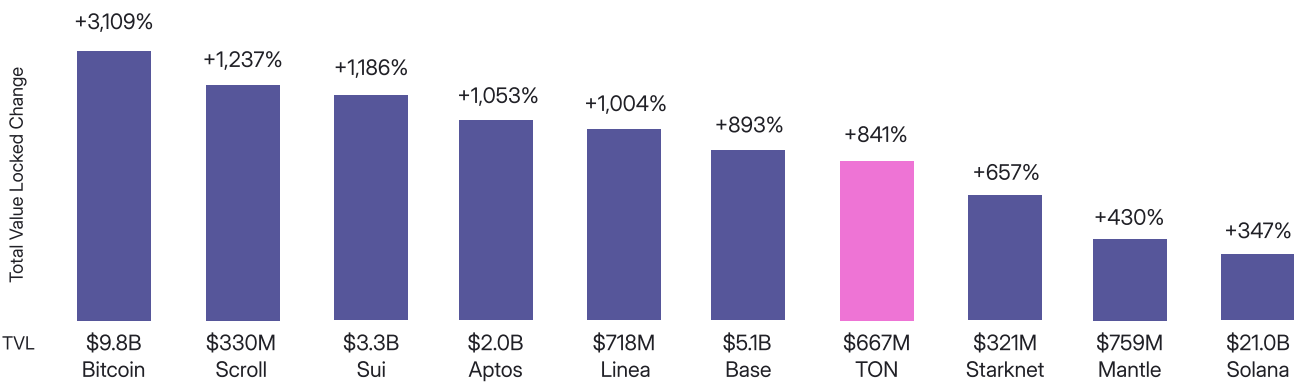
Source: <https://defillama.com/yields/pool/47ce0e90-6c63-46b6-b55c-219bebee8211>

In less than a year since its launch, USDt on TON has reached 1.1 million monthly active wallets at its peak, a figure comparable to those of Solana and Ethereum. This remarkable growth is driven by TON's uniquely effective distribution and discovery channels, designed to be user-friendly and accessible for non-crypto-native retail users—an area where even established Web3 ecosystems like Ethereum and Solana fall short (see the *TON-Telegram integration* section below)

DeFi

TON’s DeFi vertical also experienced a breakthrough year in 2024, with total value locked (TVL) rising from \$13.5 million to \$776 million at its peak, driven by significant inflows from other chains. Network transfer volumes ranged between \$5 billion and \$10 billion, representing 10–20% of Bitcoin’s average daily transfer volume of \$50 billion. This growth attracted major investor interest, including Pantera, which made its largest-ever investment in Toncoin in May 2024, followed by a subsequent raise in June.

Top 10 blockchains by TVL growth in 2024



Source: <https://cryptorank.io/insights/reports/the-year-2024-a-historic-milestone-for-cryptocurrency>

This growth was primarily driven by TON Foundation’s USDt-TON rewards program (see the *USDt* section above), which significantly accelerated DeFi development on TON, expanding from around 10 projects in 2023 to 52 in 2024.

However, the ecosystem faced challenges in managing this influx, lacking core DeFi protocols and diverse farming strategies needed to sustain liquidity beyond basic DEX pools. To address these gaps, TON Foundation is committed to supporting the development of essential DeFi protocols, ensuring the ecosystem can effectively absorb and retain liquidity.

To advance this vertical, TON launched a stableswap competition in collaboration with Curve Finance, attracting 70 teams. The winning projects, Torch Finance and Crouton Finance, utilize Curve's advanced CFMM technology to build stable swap Mini Apps in TON.

TON Foundation has also collaborated with Jupiter to incubate a liquidity aggregator on TON and launched a DeFi competition to support aggregation solutions. A partnership with GMX focused on designing new perpetual decentralized exchanges, while an initiative with EVAA Protocol, a leading lending platform on TON, introduced a DeFi incentive program. Additionally, a collaboration with Storm Trade rolled out an incentive program to encourage users to make their first trade. Similar programs with other lending protocols are planned for 2025.

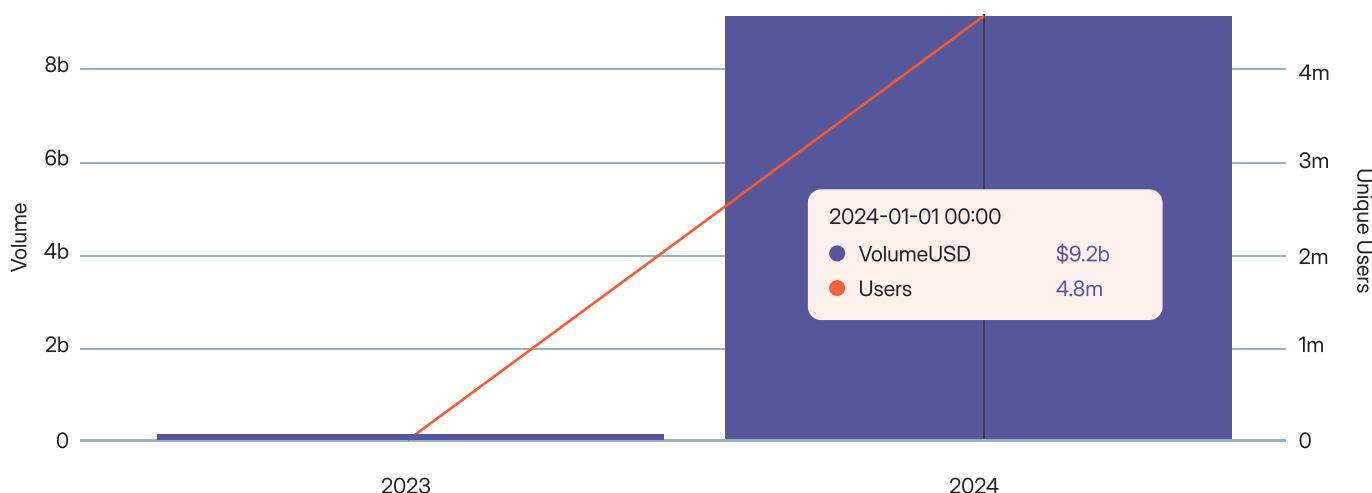
The Open League also played a role in driving TON's DeFi growth in 2024. It launched in March with a pilot incentives program that distributed 1 million Toncoin to TON Ecosystem projects in one month.

The first official season followed, distributing \$5 million, through token mining, quests, airdrops and liquidity pool boosts. By the fifth season in July 2024, TON's TVL had surpassed \$750 million. These efforts were further supported by trading challenges, DEX trader airdrops, and the launch of Memelandia, an incentives program focused on expanding TON's memecoin ecosystem.

In 2024, The Open League held eight seasons, distributing over \$26 million through seven large community airdrops, achieving 50% new user growth each season. These campaigns attracted over 2 million participants, more than 240 projects, and engaged 9 million wallets in on-chain interactions with participating applications. The number of active developer teams increased from 150 to over 350, with more than 120 teams featured on official TON social media and over 60 teams receiving marketing grants.

This activity contributed to TON's DeFi growth, going from 38,000 users generating \$111 million on DEXs to 4.8 million users with a trading volume of \$9.2 billion.

TON Blockchain DeFi volume and users



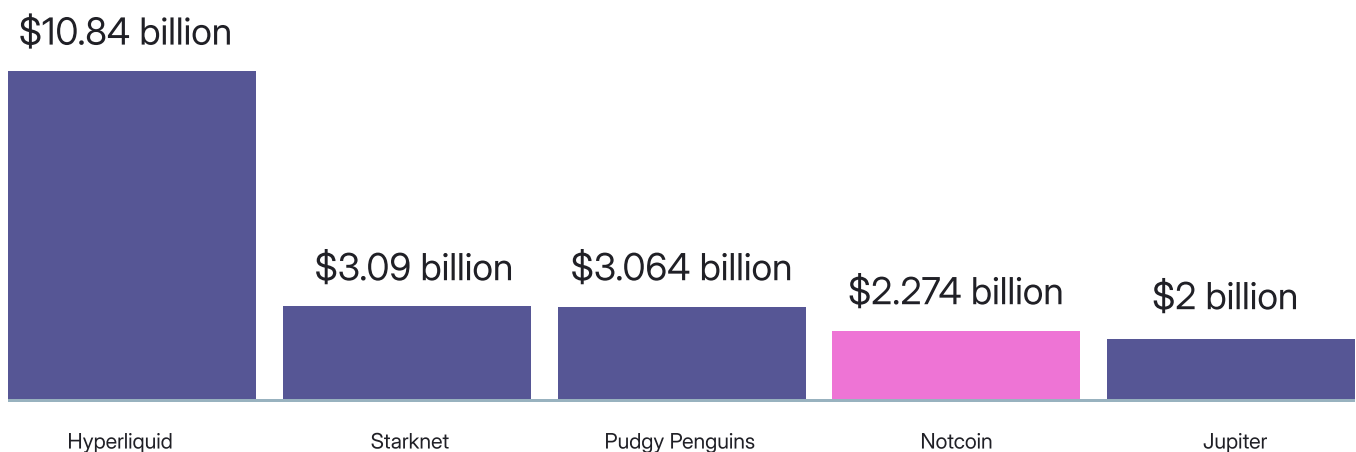
Source: <https://dune.com/queries/4475447/7484079>

For a detailed analysis of TON's DeFi position and future prospects, we recommend reading this report from GSR.

Social games and apps

Another major contributor to TON's success in 2024 was the growth of social games, a new category of Web3 applications now among the most popular Mini Apps on Telegram. This trend began with Notcoin, which by mid-2024 had surpassed Ethereum, Solana, Pepe, and even Bitcoin in popularity in certain regions, at one point becoming the world's second most traded asset by volume. Notcoin also ranked in the top 5 biggest airdrops of 2024, distributing more than \$2 billion in value.

5 biggest crypto airdrops of 2024



Source <https://decrypt.co/298815/biggest-crypto-airdrops-2024>

Following Notcoin, games like DOGS, Catizen, Hamster Kombat, Major and others were introduced. Together, these projects distributed airdrops to 28 million unique on-chain wallets, with total user numbers — including wallets on centralized exchanges — reaching hundreds of millions. To further enhance the effectiveness of mass-audience airdrops, the TON Core team introduced a unique mint-less Jetton approach, streamlining the process for future campaigns and positioning TON as the go-to platform for mass-adoption Web3 apps.

These simple apps proved highly effective in user acquisition by offering profitability and intuitive gameplay. For example, DOGS was airdropped to over 10 million on-chain TON wallets—five times more than Solana's largest airdrop distribution. Likewise Hamster Kombat reached 200 million players within 3 months. With acquisition costs of under \$1 per user on Telegram, compared to the \$10–\$15 typical in Web3, these games drove large-scale onboarding of Web2 users into the TON Ecosystem.

Building on the success of viral social games, the ecosystem is shifting toward more advanced midcore games, offering complex mechanics for players seeking deeper experiences. One example is Gatto, which has 164,000 monthly active users. To support this shift, the Telegram Gaming Accelerator was launched to prioritize midcore games that expand TON's gaming ecosystem. Several other midcore games are in development, including Boxing Star X, Telegram's first boxing game, set for release soon.

Tap-2-Earn airdrops have been a significant driver of user acquisition for TON and its partners in 2024. Major exchanges have highlighted their impact, with 1.2M new users joining centralized exchanges as a result of the DOGS airdrop alone.

Within the ecosystem, viral social games have also fueled the growing popularity of Telegram Mini Apps and enabled the development of thousands of applications across DeFi, GameFi, SocialFi and payments. These advancements have been supported by updates to the Mini Apps platform itself, including the addition of fullscreen mode, device motion tracking, geolocation access and home screen shortcuts. In 2024, TON was recognized as the most promising blockchain for the gaming industry.

As a result of TON's success in 2024, developers are increasingly choosing to launch their applications on Telegram. The [Telegram Apps Center](#) now provides a centralized hub for discovery and distribution, enabling one-click, instant access to apps directly within Telegram—no downloads needed.

For detailed insights into gaming on TON, refer to these reports by [Animoca](#) and [Pantera](#).

Real-world use cases

In 2024, TON expanded its real-world use cases. [Tonhub](#) introduced a [Visa debit card](#), allowing users to make direct payments using TON or USDt-TON. [TADA](#), a leading taxi app in Southeast Asia, also [launched a Mini App](#) within Telegram, connecting 300,000 drivers and attracting [250,000 monthly active users](#).

TON-Telegram integration

This year saw significant updates and announcements highlighting TON's deepening integration with Telegram. Building on the Wallet's [integration](#) into Telegram's settings menu in 2023, TON further expanded its role within the platform.

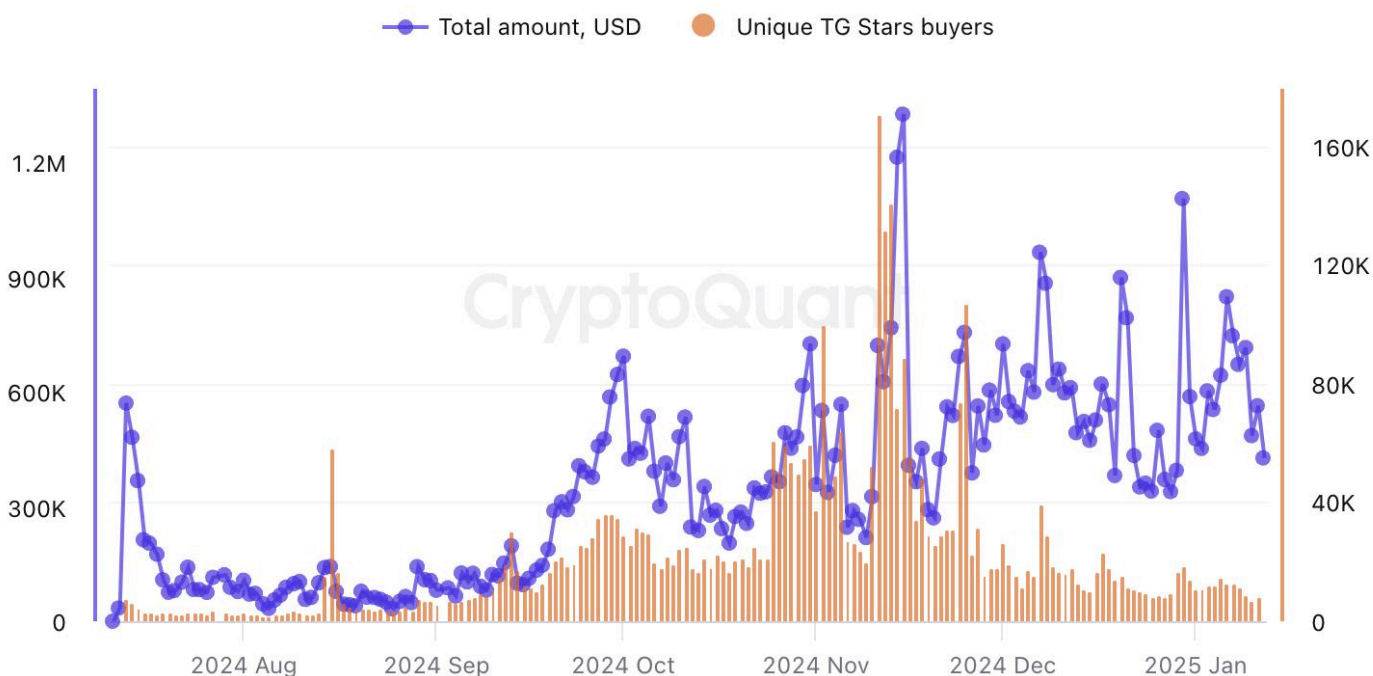
In February, Telegram [launched](#) a rewards program for channel owners, with Toncoin as the exclusive payment method. Simultaneously, Telegram enabled Toncoin payments for ads via [Fragment](#). Since then, over 40,000 users have purchased Telegram ads through Fragment, generating more than \$85 million in Toncoin. Additionally, about 26,000 channel owners withdrew ad profit-sharing rewards via Fragment, totaling \$24.6 million.

In June 2024, Telegram also introduced Telegram Stars, an in-app payment solution for digital goods in Mini Apps and comments. Alongside this, Major, a star-collecting game, attracted 70 million users within five months.

Fragment now serves as the platform for purchasing and withdrawing Telegram Stars. Since its launch, over 1.19 million users have purchased Telegram Stars via the website, totalling \$63 million in sales. Additionally, more than 1,700 Mini App developers and content creators have withdrawn \$55 million in earnings through the platform.

On peak days, Fragment recorded over 170,000 daily active wallets, ranking among the most utilized services in TON. Despite the introduction of mandatory KYC, trading volumes remained stable, highlighting the platform's scalability, security, and reliability as a link between on-chain and off-chain ecosystem components.

Telegram stars daily volume



Source: <https://cryptoquant.com/community/dashboard/66a8e4d400442146d872e5fa>

In 2024, Fragment also facilitated the purchase of Telegram Premium subscriptions, generating approximately \$39 million in Toncoin revenue from over 160,000 buyers. On 1 January 2025, Telegram introduced a gifts feature that allows users to transform limited-edition gifts into unique collectibles, transferable within Telegram or externally as NFTs on TON.

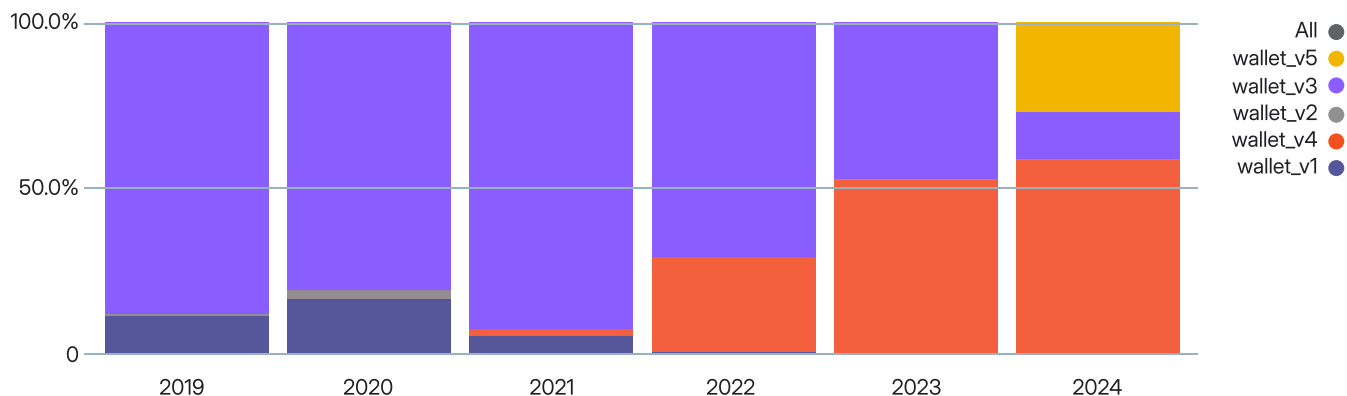
The development of Fragment, Telegram Stars and gifts highlights Telegram's deepening integration with TON. The platform has chosen TON as its primary blockchain infrastructure to advance its Mini App ecosystem and evolve into a Web3 SuperApp, placing TON at the heart of its Web3 strategy.

Tech improvements

W5 wallet

In Q2 2024, alongside the launch of USDt-TON, the fifth version of the wallet contract (W5) was introduced. It featured 25% lower fees, support for gasless USDt transactions via third-party relayers, and a flexible extension mechanism. This update was well-received, with 27.5% of all active wallets in 2024 using W5. However, the fourth version remained dominant, accounting for 58.3% of active wallets.

TON wallet contract versions adoption



Source: <https://dune.com/queries/4471894/7483447>

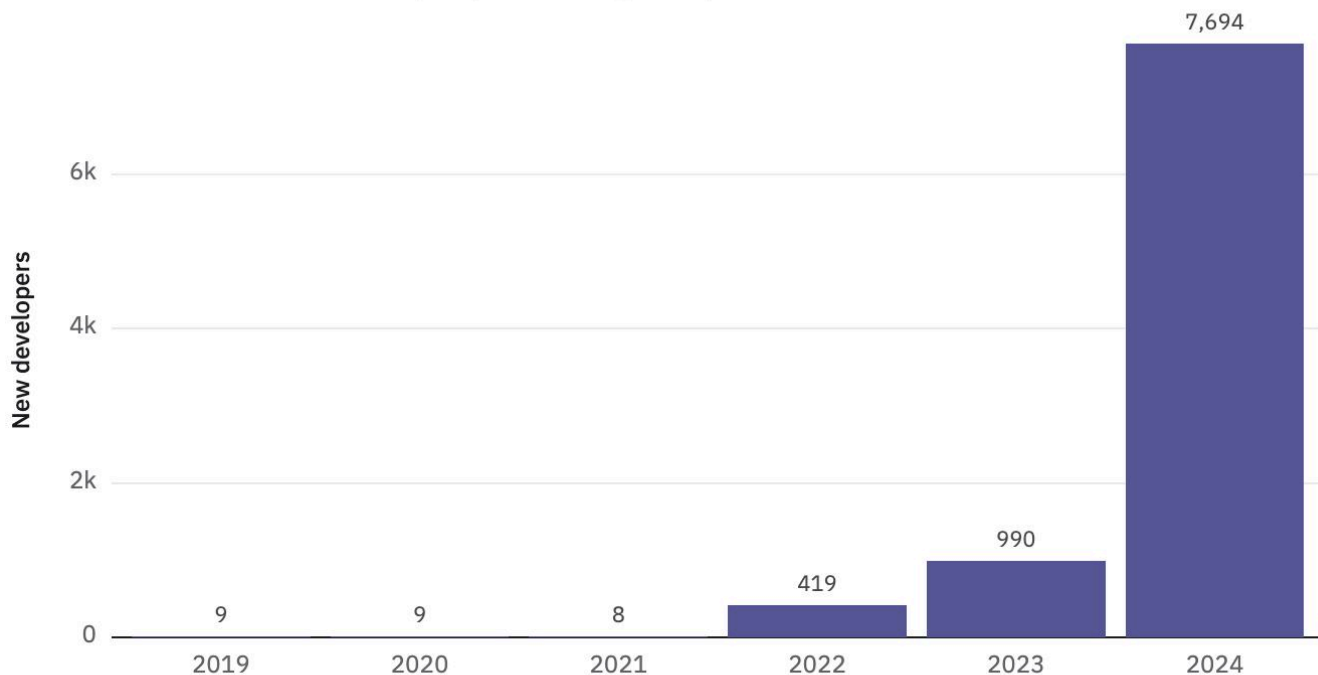
Node stability

Supporting the rapid growth in transactions and active addresses required significant upgrades to the TON node infrastructure. Over the year, 10 releases were implemented, improving the network's ability to handle increased activity. Previously, performance issues during activity spikes led to a poor user experience, with some on-chain operations during Notcoin and DOGS mintings taking minutes. By Q4, network performance stabilized, reducing median swap times to under 30 seconds.

Smart contract languages

The network's expansion was matched by a rapid increase in new projects across DeFi, GameFi and other sectors. Most of these projects used FunC, a low-level programming language, or Tact, a high-level alternative, to create smart contracts. On-chain data shows there are now over 7,600 active TON developers.

TON new smart-contract developers, estimate @ Yearly



Source: https://dune.com/ton_foundation/ton-smartcontract-development-activity

Tact updates

The Tact smart contract language saw major upgrades in 2024, including improved syntax for structs and maps, low-level ASM functions and expanded libraries. Adoption grew rapidly, with over 162,000 downloads on npmjs.org (4x growth) and use in 1,900+ GitHub repositories.

Compared to FunC and Tolk, the Tact language offers easier onboarding for developers. Based on data from verified contracts collected at verifier.ton.org, the Tact programming language is used in 36.3% of cases.

The Tact community now exceeds 9,000 members on Telegram, supported by user-friendly documentation and platform integration, including VS Code, IntelliJ IDEA, and the TON Web IDE.

Security was a key focus. A [Trail of Bits](#) audit found no vulnerabilities, gas fee optimizations were introduced, and new tools, Misti and Esprito, enhanced security at both the language and TVM levels.

Tolk release

Tolk, a modern successor to FunC, was introduced at TON Gateway in Dubai on 1-2 November, 2024. It features TypeScript-like syntax for easier use by developers familiar with JavaScript, Go, or Kotlin.

Built on the FunC compiler, Tolk retains low-level optimizations but simplifies development with updated syntax. Unlike FunC, which will only receive bug fixes, Tolk will see ongoing updates and active development.

By mid-2025, Tolk aims to automate data handling and support declarative patterns. Tutorials and courses will drive adoption, while FunC contracts will still work, the language will be deprecated to streamline the developer experience.

Strategic supporters

Key contributors have played a vital role in the growth of the TON Ecosystem in 2024.

Pantera made its largest investment in Toncoin and joined TON governance as a validator; Mirana Ventures invested \$8 million in Toncoin and formed a long-term partnership with TON Foundation; Bybit partnered with TON Accelerator to launch the cross-chain synergy cohort, advancing blockchain interoperability; OKX Ventures invested \$5 million in TON Ventures; Bitget and Foresight Ventures committed \$30 million to support Telegram-based projects; Animoca Brands, one of the largest TON validators, continued to back the ecosystem by launching games like Wat Bird.

These efforts are driving the continued development of the TON Ecosystem.

Ecosystem integrations

In 2024, the TON Ecosystem expanded with key integrations to support its development. QuickNode and Chainstack enhanced the network's RPC capabilities, and Fireblocks added TON to its Web3 custodial services. On-chain analytics were strengthened through integrations with platforms like Dune and Nansen. TON also partnered with Pyth Network to provide institutional-grade data for DeFi and other applications. The ecosystem saw further growth with Toncoin being listed on major platforms such as Binance, Bithumb and Revolut.

For 2025, planned interoperability integrations with Axelar, LayerZero, HyperLane and Wormhole aim to improve cross-chain functionality.

2024 integrations

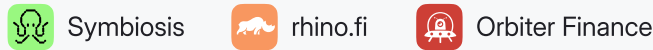
Infrastructure



Oracles



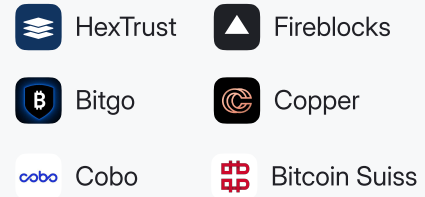
Interoperability & bridges



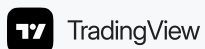
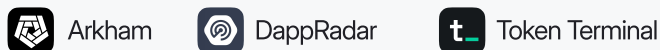
Soon Q1 2025



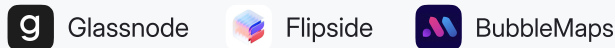
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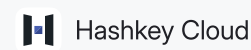
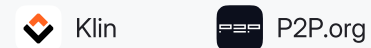
Analytics



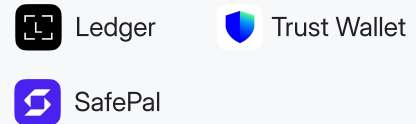
Soon Q1 2025



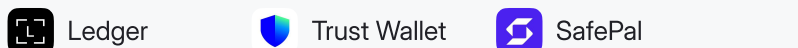
Staking



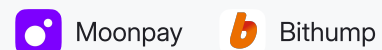
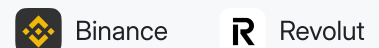
Soon Q1 2025



Web3 Wallets



Trading



Community

A key part of TON's mission is to build a thriving ecosystem of builders and activists rather than passive users. To support this [TON Society](#) organizes hackathons, bootcamps, and community initiatives, particularly focusing on APAC, CIS and MENA regions.

In 2024, TON Society hosted 140 offline events, 13 bootcamps, and two major hackathons, engaging over 8,500 participants and 2,500 teams. [The Open League Summer](#) hackathon offered a \$2 million prize pool to create 1,000 new Telegram Mini Apps. The [Winter Hackers League](#), supported by Web3 companies like [MEXC Ventures](#), [AEON](#), and [Bybit](#), awarded \$3 million in prizes, drawing 2,900 participants and 1,200 projects.

Many projects from these hackathons have progressed to successful development and are currently raising. The winner of the Belgrade winter hackathon, [Move](#), a Move-2-Earn game inspired by Pokémon Go, now has 70,000 monthly active users. [BeWhaleApp](#), a whale-trade copying bot, won in the global gaming category, while [Rebank](#) created a TON-Telegram-native neobank in Mini App form.

In MENA, [The Gateway](#), TON's flagship event in Dubai, set attendance records with 2,000 participants and 50 sponsors, while the TON DLT Foundation was [established](#) in Abu Dhabi under the ADGM DLT Foundations [framework](#).

In APAC, TON showcased its ecosystem at the [Web3 Festival in Hong Kong](#) and advanced regional initiatives through its [Asia-focused Accelerator Program](#). [TonX Studio](#), a venture studio founded by [early TON developers](#), hosted a [TON HackerHouse](#) event in collaboration with TON Foundation, offering \$1 million in prizes.

In Korea, TON [debuted](#) as a title sponsor at [Korea Blockchain Week](#) and secured a listing on [Bithumb](#), the country's second-largest exchange.

Trends & conclusion

In 2025, TON will focus on deeper integration into Telegram's architecture, with TON Connect serving as the primary gateway for users to access the broader TON Ecosystem, mainly through Telegram Mini Apps. With the full launch of TON Space in 2024, transitioning from beta to become an integral part of the app alongside its custodial section, Wallet will continue to offer native and intuitive core crypto services to Telegram users.

Telegram's new features, including TON-tokenized stickers and gifts, will also play a vital role in driving user engagement and TON adoption. New sticker collections are being launched, generating high community anticipation, with early collections increasing in value by 70x.

A major milestone is TON Teleport, a trustless bridge linking the Bitcoin network to Telegram. This integration will allow seamless transfers between Bitcoin and TON, enabling Bitcoin to function as a tokenized asset, tgBTC, within the ecosystem. It supports Bitcoin's use in DeFi applications and Web3 Mini Apps on Telegram.

To promote decentralization, TON will further develop the Society DAO, empowering the community with greater influence and enabling decentralised decision-making across the ecosystem.

Separately, the network also plans to expand its presence in the U.S. market, leveraging favorable crypto policies from the administration with initiatives like U.S. Toncoin listings, engagement with U.S. capital and outreach to American developers.

The successes of 2024 and nascent trends of 2025 demonstrate TON's commitment to creating a cohesive, user-driven ecosystem within Telegram. By emphasizing platform integration, decentralization, and market expansion, TON is laying the groundwork for sustained long-term growth.