

Ecosystem Growth Vision: Session Technology Foundation

As demand for secure messaging grows worldwide, so does Session's ecosystem. The Session Technology Foundation envisions further ecosystem growth through user base expansion and increased retention for Session messenger, supported by sustainable, community-led initiatives for the Session Token. This will allow the Session ecosystem to establish itself as a leading messaging solution across the secure, crypto-native and mainstream messaging markets.

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1. User Base Expansion: A Phased Approach

The global messaging market is vast but underserved in terms of truly secure, decentralised messaging solutions. The market landscape presents multiple layers of potential user adoption for the Session ecosystem, from security-conscious messaging users, to crypto-native messaging users, to a broader mainstream audience.

The Session ecosystem may benefit from a phased approach to user base expansion, by first continuing to serve the secure messaging user segment through its decentralised infrastructure, protection of metadata, and account creation without personally identifiable information (PII). Next, ecosystem contributors can raise awareness about Session among crypto-native users, capitalising on its deep token integration, true decentralisation, and the economic opportunities for users created through its decentralised physical infrastructure network (DePIN). Finally, by providing a highly secure messaging experience with all the features that mainstream users know and love, Session can help connect users beyond the security-focused and crypto-native segments.

This phased approach would allow the Session ecosystem to build a strong foundation in key segments before broadening its reach, ensuring a robust and resilient user experience as the ecosystem expands. For more details on Session's positioning in relation to other messaging apps, see [section 1.4](#).

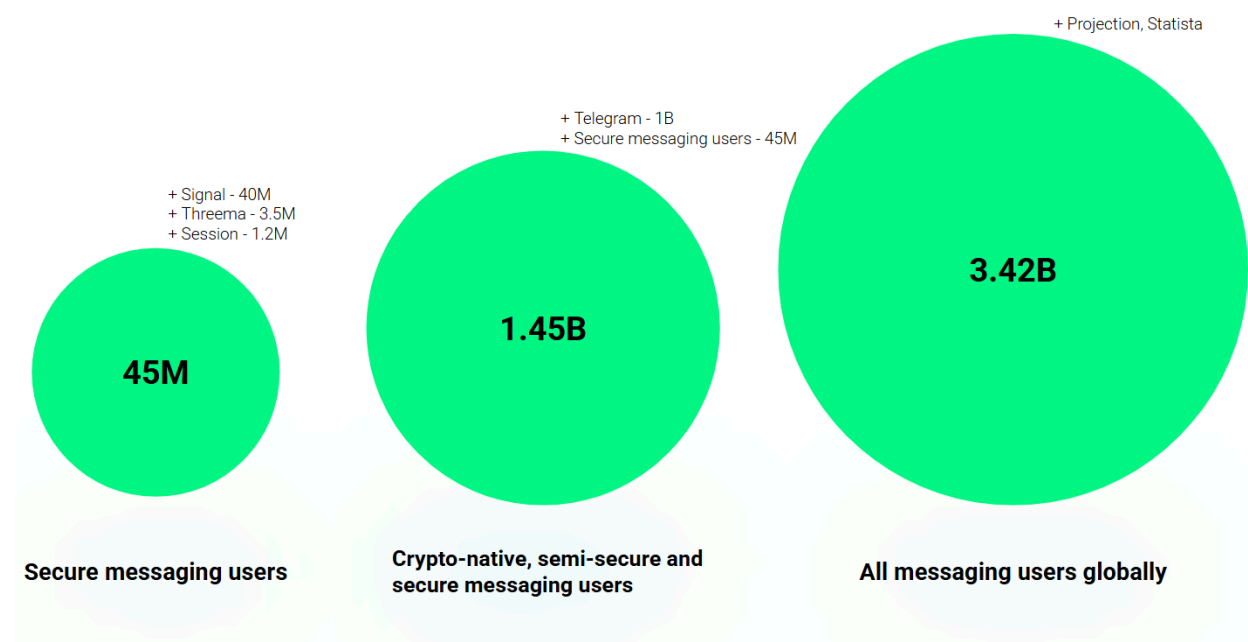


Figure 1: User base distribution for secure, crypto-native and semi-secure, and mainstream messaging apps by MAU

1.1 Secure Messaging Users

45 million monthly active users are already engaged with major secure messaging applications, including Session (1.2m MAU), Signal (40m MAU) and Threema (3.5m MAU). The Session messaging experience naturally appeals to any user seeking enhanced security, and these users should be of high interest to contributors and participants in the Session ecosystem.

Signal is the current market leader in the secure messaging market, with a large user base and widespread recognition. Threema also holds a significant position. However, Session is rapidly emerging as a strong contender due to its superior privacy focus and decentralised architecture.

1.2 Secure, Semi-Secure and Crypto-Native Messaging Users

A broader segment of 1.45 billion monthly active users currently communicate with secure, semi-secure, and crypto-native messaging platforms, including secure platforms Session, Signal, Threema, in addition to Telegram (1B MAU), which can be considered semi-secure as well as crypto-native. With the upcoming launch of Session Token and crypto integrations into Session, and as awareness of the importance of secure communications grows, this user segment presents a fertile ground for the Session ecosystem to expand its user base.

1.3 Mainstream Messaging Users

As global messaging app users are expected to reach 3.42 billion in 2024, the demand for secure messaging solutions is set to rise. Many mainstream users currently rely on free messaging apps that generate revenue through advertising and data collection. However, as awareness of security risks grows, there is a clear need for an alternative that protects user data without monetizing it, such as Session.

1.4 User Needs

1.4.1 Security-focused User Needs

Pain points	Session's solutions
I don't want to share my phone number or email with my messaging app.	Users sign up to Session without sharing phone numbers, emails or any personally identifiable information.
I don't feel safe using a messaging app that uses centralised infrastructure.	The Session Network is fully decentralised, eliminating the risks of vulnerable centralised infrastructure.
My messaging app is secure, but there's nobody to talk to. None of my friends are here and I can't get them to sign up!	Session will introduce new social onboarding flows that help new users seamlessly sign up and connect with the friend that invited them.

Positioning Statement

For individuals that need secure messaging solutions, Session is a messenger that protects user data and metadata with advanced encryption technologies, offering unmatched security and peace of mind. Unlike other secure messaging applications, Session requires no personally identifiable information (PII) for account creation and uses a trustless, decentralised network to prevent data breaches.

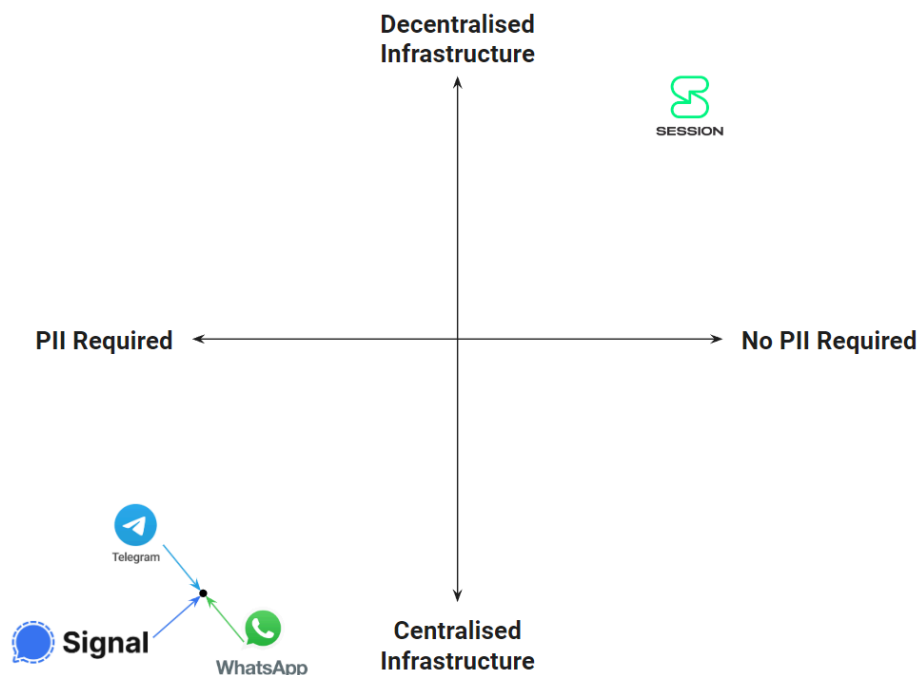


Figure 2: Positioning Map plotting Session, Signal, Telegram and Whatsapp against levels of centralisation, and Personally Identifiable Information (PII) required for account creation.

Decentralisation

A decentralised messaging app uses a distributed network of nodes to route and store messages. WhatsApp, Telegram and Signal all use centralised infrastructure, which increases vulnerability to data breaches and hacks. Session's decentralised infrastructure significantly reduces the risk of data breaches.

533 million Facebook user records leaked in 2021 ([The Verge](#))

487 million WhatsApp user records allegedly for sale on the dark web in 2022 ([TechRadar](#))

Millions of Telegram user contact details exposed on the dark web in 2020 ([CoinTelegraph](#))

Personally Identifiable Information (PII)

Personally identifiable information includes email addresses and phone numbers which are typically required by messaging apps for sign-up and/or contact sharing. This compromises user security by connecting user accounts to publicly accessible metadata, which allows users to be tracked more easily. Linking accounts to phone numbers also exposes users to security risks such as SIM swapping attacks. Session doesn't require any personally identifiable information to create an account. WhatsApp, Telegram and Signal all require phone numbers to sign up.

2023 saw a 266% surge in infostealing malware designed to compromise PII ([IBM](#))

SIM swapping attacks increased by 400% in 2024 ([Efan](#))

1,900 phone numbers belonging to Signal users were exposed in the Twilio phishing attack in 2022 ([McAfee](#))

1.4.2 Crypto-Native User Needs

Pain points

I want to be able to participate in the infrastructure of the apps I use and earn rewards for my contributions.

I believe in decentralisation, and using a centralised messaging app goes against my beliefs.

The apps I use for sensitive types of crypto communications, from OTC deals to internal DAO discussions, are fundamentally insecure.

Session's solutions

It's easy to help secure the Session Network and earn rewards by running or contributing to a node via the Session Staking Portal.

Session is a truly decentralised messaging app that rivals centralised competitors.

Session offers the highest level of security of all secure messaging apps on the market.

Positioning Statement

For crypto-native users seeking a messaging app with web3 integrations, Session offers a secure solution with a native utility token for in-app purchases, as well as other crypto-native features like namespaces and in-app wallets. Unlike other crypto-native messaging services that are centralised, Session is a true dApp with a DePIN network, secured by stakers, that powers the messaging app, rather than a centralised web2 messaging app with a superficial web3 layer.

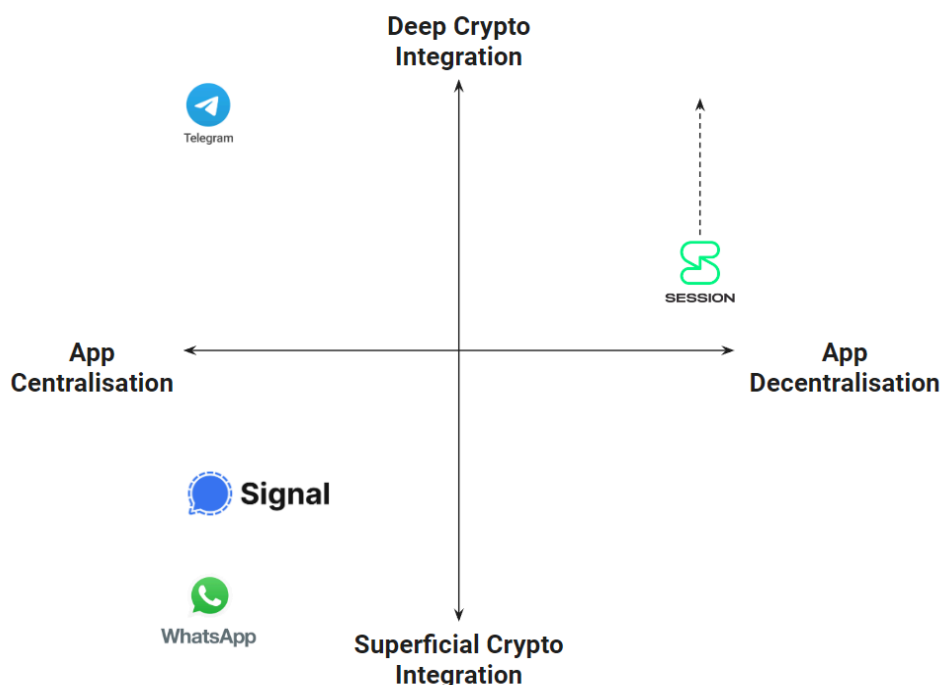


Figure 3: Positioning Map plotting Session, Signal, Telegram and WhatsApp against levels of application decentralisation and crypto integration

Application Decentralisation

Application decentralisation refers to how distributed a messaging app's infrastructure is in terms of operational control and costs. Apps with decentralised infrastructure distribute operational control and

costs to the edges, reducing overall costs while simultaneously creating earning opportunities for diverse, distributed participants through operator incentives. Signal, WhatsApp and Telegram all rely on centralised infrastructure, incurring significant operational costs and blocking user participation in infrastructure operation. In the case of Telegram, there are indirect economic opportunities for validators of the TON blockchain as validators and for creators of mini-apps that may generate revenue in various ways. Session's decentralised physical infrastructure network (DePIN) distributes operational control, reducing costs and creating economic opportunities for network operators and contributors who stake to secure the network.

Signals' centralised infrastructure was project to cost a massive \$14m to run in 2024 ([Signal](#))
 Session's network is currently run by over 2000 nodes around the world ([Session Token](#))

Crypto Integration

A messaging app's capabilities and features related to cryptocurrency, as well as the quality and security of these offerings. It covers the range of actions users can perform with crypto, such as transactions, staking, and in-app purchases. Signal offers a single crypto integration feature through a third party provider, and WhatsApp offers no crypto integrations. Telegram allows its users to access crypto integrations via bots and mini apps, built by third parties on the TON blockchain with varying levels of security and quality. Planned crypto integrations for Session include the Session Name Service and Session Wallets.

Telegram has 500m active users of its mini-apps in 2024 ([Telegram](#))
 TON's ecosystem currently has 7m monthly active wallets ([TON](#))

1.4.3 Mainstream User Needs

Pain points	Session's solutions
I don't trust big tech, and I need easy-to-use, convenient alternatives.	Session is a highly secure messaging app with all the features users know and love, from group chats to emoji reacts.
I don't want my data to be exposed in (another) massive data breach.	Session protects user data and metadata through advanced encryption technology. Its decentralised network removes single points of attack vulnerable to breaches.
I want to protect my data from being used by AI or sold to advertisers without my consent.	Nobody has access to unencrypted Session user data, eliminating the possibility of selling or abusing user data.

Positioning Statement

For mainstream consumers that seek protection from data breaches and data misuse by big tech, Session offers an alternative messaging solution that protects user data and metadata while also providing the features and performance that users expect within an easy-to-use, intuitive interface. Unlike competitors, Session does not harvest user data or metadata, and therefore prevents this data from being exposed in a breach, sold to advertisers, or used for other purposes such as training AI models.

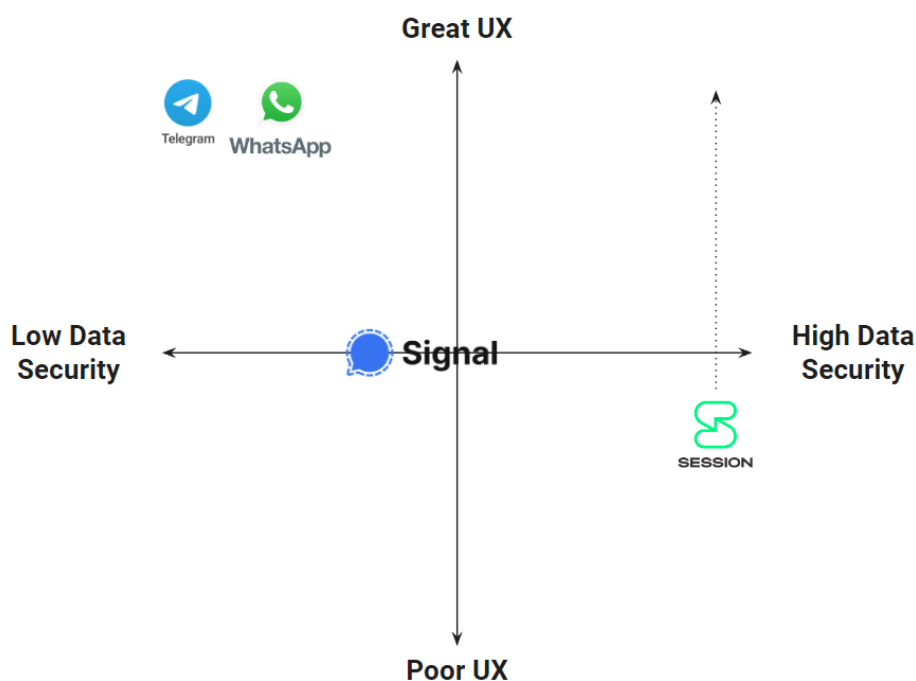


Figure 4: Positioning Map plotting Session, Signal, Telegram and WhatsApp against levels of user experience and data security.

User Experience

User experience in messaging apps encompasses overall user interface design, ease of use, and the application's performance, as well as how intuitive, efficient and satisfying the messaging experience is. Session is making strong strides towards modernising its UI, improving its performance, and optimising usability.

72% of consumers believe brands must ensure that applications work perfectly ([AppDynamics](#))
63% of users expect consistent and reliable performance ([Moldstud](#))

Data Security

Data security for messaging apps is defined as the range of security measures, including end-to-end encryption (E2EE), reduced metadata leakage, protection of personally identifiable information (PII), and the decentralisation of the app's operations. Session is the only private messenger that provides data security on all these fronts, while WhatsApp, Signal and Telegram implement varying combinations of these measures but not all ([ProtonMail, 2023](#)).

85% of global adults want to do more to protect their online privacy ([Norton](#))
81% of Americans are concerned about how companies use the data they collect about them ([Pew](#))
79% of people worry that companies will sell their data without consent ([Pew](#))

2. Ecosystem Growth

Session's current user base of 1.2 million monthly active users has been achieved primarily through organic growth. New ecosystem growth initiatives spearheaded by contributors, including enhancing virality, expanding brand reach, boosting retention, and cultivating the Session Token community will contribute to this momentum. Session's user growth is also characterised by growth spikes caused by exogenous factors, such as changing political conditions in a given region, or issues faced by other messaging apps that may trigger user migrations.

2.1 Ecosystem Growth Initiatives

2.1.1 Supporting User Growth

Session's growth is reflective of increasing interest in privacy-preserving, decentralised, user-centric technologies. So far, much of Session's user base expansion has come from the USA, UK and Western Europe. To introduce more users to the ecosystem, Session's contributors have proposed a number of different initiatives.

Initiative	Suggested Approach
Boosting Virality Enhancing the natural virality of Session by giving users more opportunities and incentives to seamlessly onboard their friends to the app.	Referrals Referral links to invite new users to sign up to Session with a free month of Session Pro.
	Seamless Social Onboarding Invitations that guide recipients through the sign-up process and directly connect them with the sender.
Name recognition Expanding the reach of Session to users in the mainstream and crypto-native markets, while building on success in the secure messaging market.	Performance Growth Leveraging traditional targeted methods, App Store enhancements, and wallet targeting to onboard both mainstream and crypto-native users.
	Social Media Campaigns, Organic and Paid Driving key messages around digital hygiene, decentralisation, and security on social media platforms to raise awareness.
	SEO Content Campaigns Developing content to improve SEO and position Session and Session Token as leading solutions for secure, decentralised communication.
	Public Relations Partnering with PR firms specialised in secure, crypto-native and mainstream technology to drive global press coverage.
Supporting Global User Hubs	Localisation Adapting Session's interface and educational materials to reflect the languages and cultural contexts of high-growth geographies, supported by localised user-generated content from regional ambassador programs.

Improving user awareness and experience in high-growth regions	<p>App Store Optimisation Optimising Session's Apple App Store and Google Play Store listings to improve visibility and download rates, and using targeted growth techniques on the Apple App Store and Google Play Store to support downloads across different regions.</p>
<p>Social Proof Leveraging the influence of trusted voices and engaged community members to onboard new users.</p>	<p>KOL Campaigns Partnering with trusted security advocates, visionary technology leaders, and authentic voices with high influence over users in secure, mainstream and crypto-native target markets.</p>
	<p>Community-Led Awareness Campaigns Empowering community members to advocate for Session within their networks and local communities through ambassador programs and user-generated content campaigns.</p>
	<p>Grassroots Partnerships Continuing to strengthen Session's legitimacy and reputation among NGOs, activists, and human rights defenders through strategic relationship-building efforts.</p>

2.1.2 Improving User Retention

To foster strong user retention, an outstanding in-app experience, ongoing product development, and active user engagement remain essential for Session. The existing Foundation contributors will support this mission through diverse approaches, including exceptional user support, continued community involvement, re-engaging inactive users and enhancing the overall experience.

Initiative	Suggested Approaches
<p>Product Development Providing users with an excellent experience in Session messenger and engaging them at key points in their user journey to ensure optimal retention.</p> <p>For a more detailed overview, please see the Session messenger roadmap in section 3.1.</p>	<p>Onboarding Onboarding flow improvements based on extensive user testing to improve Day 1 retention.</p>
	<p>Engage Early Launching read-only communities with curated content relevant to users to keep them coming back to the app even before building out their contact network.</p>
	<p>Performance Excellence Ensuring optimal app performance by minimising load times, reducing latency, and ensuring smooth, bug-free interactions to maintain high levels of user satisfaction and engagement.</p>
	<p>User Resurrection Re-engaging inactive users with strategic push notifications to make them aware of novel, fun features.</p>
<p>Out-of App Engagement</p>	<p>Gamification Rewarding users for exploring the app and conducting key actions in the app with special Account Badges.</p>
	<p>User Support Enhancing Session's existing support system by reducing response times, expanding the self-help knowledge base, and offering more personalised assistance to users.</p>

Providing users with an excellent experience beyond Session messenger and prompting them to return to the app.	Community Engagement Fostering a strong sense of community through high levels of interaction and engagement across Discord, Telegram and Twitter, encouraging users to return to the app.
	Email Campaigns Utilising targeted email campaigns to keep users informed about updates, features and incentives, prompting them to return to the app.

2.1.3 Ecosystem Growth through Session Pro, Session Name Service (SNS), and Staking

New crypto integrations and features including Session Staking, Session Pro and the Session Name Service (SNS), Staking, and Session Pro will allow Session’s end users to contribute to the Session Network and its sustainability in different ways.

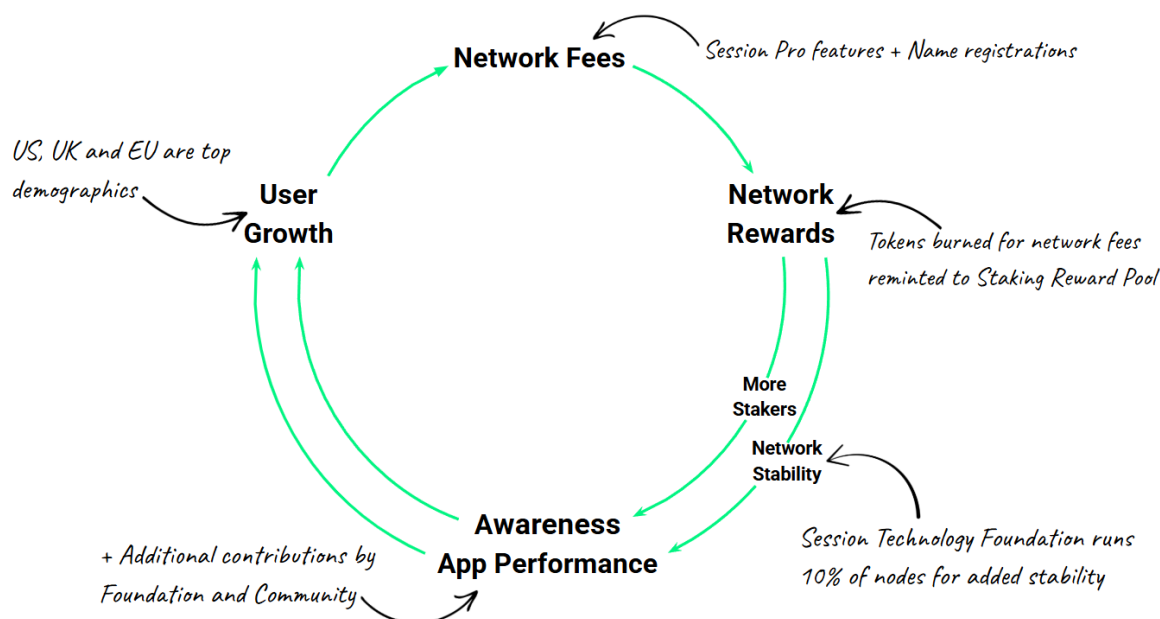


Figure 6: Session Token links messaging user growth, token utility uptake and DePIN network rewards

This uptake can be supported by various proposed measures.

Initiative	Suggested Approaches
Conversion incentives Leveraging a freemium model to incentivise current Session messenger users to test out and upgrade to Session Pro and utilise the	Referrals Referral links to invite new users to sign up to Session with a free month of Session Pro and/or their first Session Name.

<p>Session Name Service (SNS).</p>	
<p>Awareness Raising Onboarding existing and new users to Session Pro and SNS by increasing awareness of their unique benefits.</p>	<p>In-App Onboarding Encouraging users to explore Session Pro and SNS to users via notifications and in-app prompts.</p> <p>Performance Growth and Wallet Targeting Utilising targeted performance strategies and wallet targeting to raise awareness among prospective users of Session Pro, SNS and the SNS Marketplace.</p> <p>Social Media Campaigns (Organic and Paid) Running organic and paid social media campaigns specifically highlighting the benefits of Session Pro and having a unique, collectible Session Name.</p> <p>Email and Content Campaigns Developing content and email campaigns to raise awareness of Session Pro and Session Name Service as essential solutions for secure communication.</p>
<p>Session Token Onboarding Expanding the Session Token ecosystem by onboarding new users from the broader crypto community.</p>	<p>TGE Launch Partnerships Collaborating with strategic launch partners to increase awareness and distribution of Session Token within the crypto ecosystem during the Token Generation Event (TGE).</p> <p>Testnet Incentive Program Invite-only Session Testnet with exclusive referrals and partnership programs.</p> <p>Web3 Quests Partnering with Quest platforms that reward users for exploring Session Token functionality in Session in a gamified manner.</p>
<p>Session Token Onboarding via Session Ensuring uptake of token utility among existing Session user base through onboarding initiatives.</p>	<p>In-App Onboarding to Session Token Including a dedicated section within the settings page of the Session app that guides users on how they can participate in the network and utilise Session Token</p> <p>Out-Of-App Onboarding Campaigns for Session Token Further facilitating user onboarding to the Token through social media engagement, educational materials, community activation events and targeted email outreach.</p>
<p>Token Utility Enhancements Making participation in the ecosystem convenient, fun and rewarding through extended token utility.</p> <p>For a more detailed overview, please see the Session Token Roadmap in section 3.2.</p>	<p>Liquid Staking Partnering with a liquid staking provider to allow tokenholders to earn rewards for securing the network while retaining liquidity.</p> <p>Secondary Marketplaces for SNS Facilitating the development of secondary marketplaces where users can trade Session Name Service (SNS) items, increasing the utility of and demand for SNS.</p> <p>Session Wallets Providing secure and user-friendly wallets within the Session app to store, manage, and transact with Session Tokens.</p>

3. Roadmap

This proposed roadmap focuses on how ecosystem contributors can enhance early retention of new users and boost overall user retention through improved features and an exceptional user experience. A key milestone is the launch of Session Pro, introducing premium features that deliver value and delight to power users. The roadmap also integrates Session Token as a key mechanism for contributors to support the advancement of Session messenger’s objectives and incentivise user behaviours that foster overall ecosystem growth. This dynamic approach creates a powerful synergy between Session messenger and Session Token, cultivating a thriving ecosystem of active users and committed token holders.

3.1 Session messenger

3.1.1 Engage Early

To enhance early retention, Session should find ways to seamlessly connect new users with contacts and communities, while providing engaging non-social features that encourage exploration and network building.

Initiative	Suggested Product Features and Optimisations
Onboarding and connection Streamline account creation and facilitate easier connections with contacts	Account Creation Onboarding flow improvements based on extensive user testing
	Deep Links Direct invite links that guide new users through the download and sign-up process, automatically initiating conversations with the sender, via URLs and QR codes.
	SNS Purchase In-app SNS purchase enables connecting with contacts without their Account ID
Indirect and non-social features Offer immediate value to new users through community engagement and non-social features, providing a rich experience while they discover and connect with contacts.	Communities Display curated read-only communities of interesting content for new users to explore
	Community Descriptions Implement new designs which include community descriptions, making them more compelling to join and more relevant to the user.
	Community Experience Progress towards desired community experience, including improved moderation tool suite
Re-engage new users Ensure newly onboarded users return to the app.	Smart Prompts Send notifications to non-active new users with strategic messages, informing them about Session features and encouraging them to join a community.

3.1.2 Retention

To boost user retention, Session will focus on enhancing contact discovery, improving app performance, introducing delightful features, and re-engaging inactive users.

Initiative	Suggested Product Features and Optimisations
Performance and reliability Improve user perceived performance and speed in Session	Speed Lokinet integration to improve the speed of sending and receiving messages 10x
	Performance Strategic code refactoring to improve performance (in Android in particular)
	Reliability Improve notification & message delivery reliability
	Optimistic Updates Implement optimistic updates, which will make the app feel faster and more responsive to users
	Network Information Path screen optimisation so users can see if there are any network issues affecting their ability to send messages reliably.
User Expression Add delight features that drive retention by allowing users to express themselves	Stickers Custom sticker packs and sticker trading will enable users to create conversation-specific libraries, enhancing their chats with personalised in-jokes and unique expressions.
	Profile Expression Avatar customisation and extensions to allow users to express themselves
	Message and Call Effects Fun visual effects for messages and calls
	Visual Customisation Additional themes and custom backgrounds
User Resurrection Re-engage inactive users	Smart Prompts Send notifications to non-active new users with strategic messages about exciting new features

3.1.3 Session Pro

To enhance user experience, Session will launch the beta version of Session Pro, offering premium features to users.

Initiative	Product Features & Optimisations
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<p>Launch Session Pro Open Beta Launch the MVP for Session Pro to gain insight into user preferences and behaviour</p>	<p>Payment Integration Implement payment and cross-platform management mechanism</p> <p>Larger File Transfers Enable larger file transfer sizes for attachments for Pro users</p> <p>Account Profiles Self-expression with unique account profiles, including a bio and links</p> <p>Badges Implement badges for Pro users to allow them to signal their membership to different groups on their account profile</p>
<p>Session Pro Launch extended and enhanced feature set for Session Pro</p>	<p>Expanded Feature Set Conduct extensive user research to determine high priority and high impact features to include in the full Session Pro feature set</p>

3.2 Session Token

3.2.1 Onboarding and Engagement for Token Utility

Uptake and retention of Session Token utility can be supported through a range of product initiatives.

Initiative	Product Features & Optimisations
Staking Onboarding Ensure seamless onboarding to Session Token staking	Beginner-Friendly Staking Comprehensive user testing to ensure staking is easy for non-crypto users
	Product-Led Onboarding In-app flows in Session messenger to educate and onboard users to staking and contributing to the network
	Flexible and Accessible Staking Increase access to staking through partnerships with liquid staking providers and microstaking
Staking Engagement Support retention through fluid and intuitive staking UX	Convenient Stake Management In-app management of staking and rewards from within Session Wallet
	Expanded Staking Tooling Additional staking tooling so users have customised information to inform their staking strategy (e.g. dashboards, monitoring bots)
Extended Token Utility Facilitate dynamic user interactions via Session Token	SNS Marketplace Introduce secondary marketplaces for SNS
	Wallet Integration Implement wallet integration in Session, enabling in-app value transfer between Session messenger users

4. Further Resources

To learn more about Session messenger, Session Token, and the overall Session ecosystem, please explore the following resources:

- [Session Whitepaper](#)
- [Session Docs](#)
- [Session GitHub](#)
- [Session Website](#)
- [Session Token Website](#)