

# Q4 2024

Stellar Development Foundation  
Quarter-in-Review

Feb 2025



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# 01.

# EXECUTIVE SUMMARY

# EXECUTIVE SUMMARY

*As we embark on making Stellar a standard for everyday financial services, the Stellar Development Foundation (SDF) maps our work to the following priorities:*

**01**

Future-proof and sustainable Stellar

**02**

A focus on everyday financial services

**03**

Trustworthy technology stack to advance adoption



Read the following pages to see what SDF has accomplished this past quarter.



# EXECUTIVE SUMMARY

**\$6.2 MILLION**

Enterprise Fund &  
Matching Fund

**WALLETS +**  
**SOROBAN**

Bring new value to users



*Soroban growth*

**RECORD \$52M TVL, A  
640% INCREASE**

Total Network Transactions

**18 BILLION**

**RANKED #9  
FASTEST  
GROWING  
ECOSYSTEM**

In Electric Capital's 2024  
Developer Report

# 02.

# NETWORK STATS

To measure and assess growth of the network over time, SDF has established a select group of metrics to track throughout 2024.

These metrics\* serve as indicators of general usage of the network.

\*As of 9/30/2024



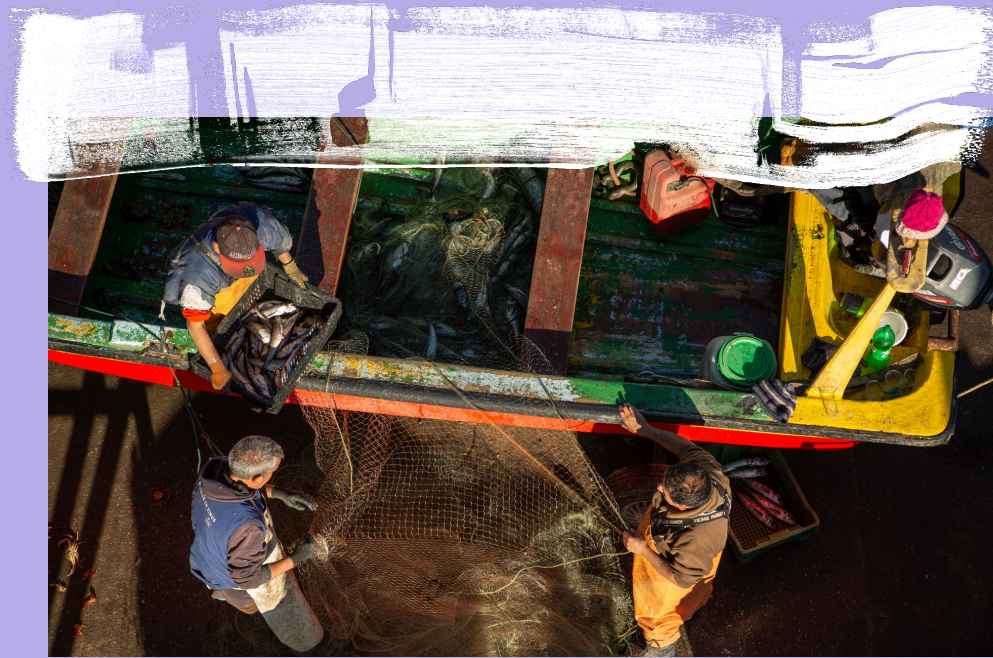
# 9M+

## Total Addresses

The total number of unique addresses on Stellar, reflecting consistent network growth and adoption.

# Real World Asset Supply **\$458M**

The total supply of real world assets  
expressed in USD.





# Real World Asset Payments Volume

# \$4.1B

The total payments volume for all real-world assets, expressed in USD.



Total Volume  
**\$19.1B**

**\$4.1B**

Payments

*Non-DEX transfers of value between two accounts*

**\$417.1M**

DEX

*Orderbook and AMM trades*





## Total Operations

# 557.2M

The count of all operations on the network. Operations on Stellar are any functions that change the ledger state.

# Decentralization Update

Average Ledger Close Time

# 5.93s

The average time in seconds to close all ledgers during a quarter. This metric highlights Stellar's speed and reliability. Validator nodes ensure the decentralization and security of the network.

**508**  
TOTAL  
NODES

**23**  
TIER 1  
VALIDATOR  
NODES



# STELLAR RANKS #3 IN TOTAL TRANSACTIONS...

## Total Addresses

Blockchain	Total Addresses	Rank
Ethereum	318M	1
Solana	138M	2
Polygon	115.5M	3
Sui	37.8M	4
Celo	10.2M	5
<b>Stellar</b>	<b>9M+</b>	<b>6</b>

## Total (successful) Q4 Transactions

Blockchain	Total Transactions	Rank
Sui	2.93M	1
Solana	2.88B	2
<b>Stellar</b>	<b>557M</b>	<b>3</b>
Celo	259M	4
Polygon	192M	5
Ethereum	110M	6

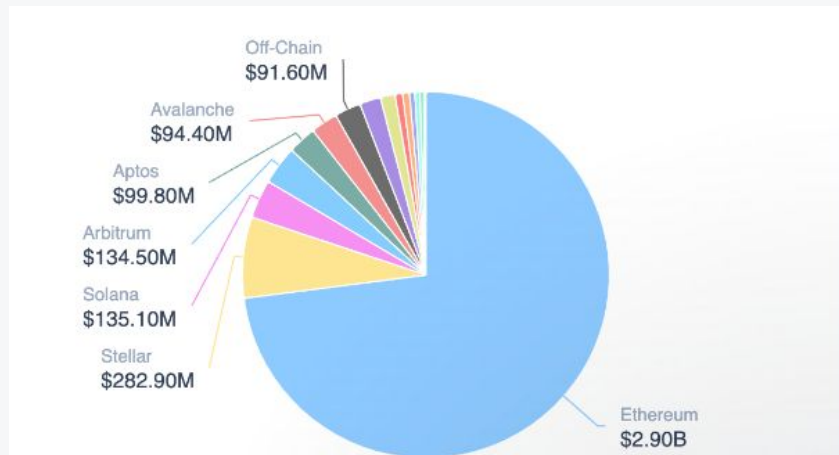
Stellar operations align with industry transaction standards.

Source: [custom queries from blockchain ETL datasets](#), [Celo](#)

# ...AND #4 IN RWA MARKET CAP

Stellar is a leader in tokenizing RWAs, supporting **\$458M** in RWA market cap & providing efficient payment solutions.

**Tokenized Treasuries: #2. A trusted role in financial innovation.**



Source: [rwa.xyz](https://rwa.xyz)

**RWA Market Cap: #3**

Blockchain	RWA Market Cap	Rank
Ethereum	122.9B	1
Solana	5.2B	2
Polygon	514.9M	3
<b>Stellar</b>	<b>458M</b>	<b>4</b>
Sui	373.7M	5
Celo	243.4M	6

Source: [rwa.xyz](https://rwa.xyz)

# Q4 ONCHAIN PAYMENTS

Blockchain	Total Q3 Payments	Rank
<b>Solana</b>	4.9B	1
<b>Sui</b>	391M	2
<b>Stellar</b>	162M	3
<b>Polygon</b>	138M	4
<b>Celo</b>	124M	5
<b>Ethereum</b>	56M	6

Source: [custom queries from blockchain ETL datasets](#), [Celo data](#)

# FEES

Stellar's average transaction fee remains the lowest, ensuring affordability for users globally.

Blockchain	Q3 Average Fee	Q4 Average Fee	Rank
<b>Stellar</b>	0.000014	0.00010	1
<b>Celo</b>	0.000942	0.00082	2
<b>Polygon</b>	0.000627	0.00085	3
<b>Sui</b>	0.005552	0.00818	4
<b>Solana</b>	0.004473	0.04726	5
<b>Ethereum</b>	2.539711	2.98707	6

Source: [custom queries from blockchain ETL datasets](#), [Celo](#)

# BLOCK TIME & FINALITY

## Ledger Close Time

Blockchain	Block Time	Rank
<i>Solana</i>	.41 seconds	1
<i>Sui</i>	.5 seconds	2
<i>Polygon</i>	2.18 seconds	3
<i>Celo</i>	5 seconds	4
<i>Stellar</i>	5.93 seconds	5
<i>Ethereum</i>	12.08 seconds	6

Stellar achieves instant finality, making it one of the fastest blockchains for secure transactions.

Blockchain	Finality	Rank
<i>Stellar</i>	0 seconds	1
<i>Celo</i>	0 seconds	1
<i>Sui</i>	.5 seconds	2
<i>Solana</i>	12.8 seconds	3
<i>Polygon</i>	4 minutes	4
<i>Ethereum</i>	16 minutes	5

Source: [Chainspect](#)

# 2024 YEAR END STATS

**2.6 BILLION**

Total Operations in  
2024

**18 BILLION**

Total Network Operations at Year  
End



*Total Payment Volume*

**\$32 BILLION**

**\$126,016.77**

Total Network  
Transaction Fees

**\$10.6 BILLION**

Real World Asset  
Payments Volume  
Underscores Stellar's  
Ability to Handle  
Cross-Border  
Transactions Efficiently.

**03.**

# **NORTH STAR 1: Future-proof and sustainable Stellar**

# BUILD A FLOURISHING SOROBAN ECOSYSTEM

*Accelerating DeFi growth through real-world smart contract use cases.*

The Q4 objectives to build the Soroban ecosystem were to:

1. Drive Soroban adoption among Stellar-native wallets, DEX builders, and issuers.
2. Enhance Soroban ecosystem by layering new capabilities onto existing protocols.
3. Increase Soroban TVL and transaction volume as new participants drive adoption.

Soroban growth remains strong across all key metrics, signaling success to the broader market and attracting developer mindshare. Its adoption also reinforces product-market fit, especially as emerging markets gain access through Stellar's wallet ecosystem.



Lobstr and Meru now provide direct access to Soroban protocols via their mobile apps, driving significant user adoption.



Aquarius users voted to migrate all liquidity programs from Stellar's native AMMs to Soroban-based AMMs.



Blend announced V2, integrating community-requested features through direct contributions.



Soroban growth trajectory remains strong:

- Blend became the first protocol to surpass \$15M in TVL.
- 4 additional protocols achieved milestones: 2 exceeding \$5M in TVL & 2 surpassing \$1M.



Soroban total TVL surged 640%, growing from \$7M to \$52M.



Soroban adoption is accelerating:

- Since launch (Mar 19) Soroban has processed:
  - 500K transactions (as of Nov 15)
  - 1M transactions (as of Dec 24)
  - 1.5M transactions (as of Jan 15)



# STELLAR COMMUNITY FUND

*The Stellar Community Fund (SCF) is an open-application awards program that draws on community input to support developers and startups building on Stellar.*

[communityfund.stellar.org](https://communityfund.stellar.org)



[SCF 6.0](#) awarded \$5.6M to 103 projects across 3 rounds with 311 submissions.



70% were first time participants of the Build Award.



39 Projects completed the 9th Kickstart cohort and were awarded \$385,000 in XLM.

# ENHANCING SOROBAN'S FUNCTIONALITY AND SCALABILITY

*Make Soroban a top tier smart contracts platform.*

This quarter, the focus for Soroban development was to enhance usability, simplify adoption for developers and applications, and expand Soroban capabilities and capacity.

The progress this quarter was as follows:

- The release, implementation and vote of [Protocol 22](#) ushered in Soroban improvements designed to enhance network capabilities and developers ability to build cutting-edge applications.

Some of those improvements included:

- [Constructors](#) make it easier and safer for contract developers to install contracts.
- [BLS-12-381](#) host functions were implemented in Soroban, unlocking new innovations in privacy (encrypted wallets) and scalability (zk-rollups).

*What's next?*

With the release of Protocol 22, Soroban has achieved a nearly feature-complete state for its core functionality. Our work moving forward will focus on increasing speed, performance and scalability to support a growing ecosystem of everyday financial services and the users who will rely on them with community input and support.

# DEVELOP A ROADMAP FOR THE FUTURE OF STELLAR GOVERNANCE

*Focused on a theory of governance and improved decentralization and safety.*

The objectives and focus for the fourth quarter was to enable validator network growth and improve network transparency through standardised third-party data access.

The progress this quarter:

- Integrated Stellar with [Dune](#), [Nansen](#) and [Artemis](#), enabling streamlined network activity data and free visualization tools for the community.
- Validator award program: [supported 15 new organisations](#) to add their validators to the network, improving decentralization.
- Completed a fundamental analysis of how SDF thinks about quorum participation.

*Why does governance matter?*

Network growth and decentralization is a key driver for operational robustness. Encouraging more community validators strengthens expertise and enhances network resilience. Data transparency is critical to effective governance, because it reduces gatekeepers and limits censorship. Using standard providers allows unambiguous comparisons with other blockchains.

# DEVELOPER EXPERIENCE

*Establish a best-in-class developer experience. Developer tooling and documentation is comprehensive, easy-to-use and surface on demand, is designed to support builders at any stage, and creates a seamless experience.*

## **The objectives:**

- Streamline Documentation for Improved Usability
- Improve Stella Bot for Developer Onboarding
- Create a Unified CLI across Stellar and Soroban
- Enhance developer experience in Stellar Lab
- Enhance RPC Usability for a Better Developer Experience

## **The progress:**

- For developer documentation, we rolled out Spanish localization and launched the redesign of the homepage.
- Stella Bot now includes threaded replies with context and enhanced code coverage.
- Stellar CLI saw support for classic operations during transaction creation; binary releases for all major Operating Systems; and an implementation of robust signing using LEgger, Stellar Lab, System keychain by the CLI.
- Stellar Lab added testing coverage as well as support for local network (using Quickstart).
- RPC rolled out getLedgers endpoint as well as rebranded to Stellar RPC.
- Stellar integrated with data platforms Dune, Nansen and Artemis giving builders access to analytical insights, custom reporting and dashboards based on Stellar data.

## **The results of these activities:**

- Developers provided positive feedback on the enhanced functionality of Stellar Lab and Stella Bot.

**04.**

**NORTH STAR 2:  
A focus on everyday  
financial services**

# PRODUCT UPDATES: ASSET TOKENIZATION

*Increase adoption of tokenized assets that are providing utility on the network.*

The objectives for this quarter were to attract new assets to the network, bring new volume and improve the infrastructure for future adoption.

## HIGHLIGHTS

- Stellar was listed as a qualifying chain for the [first Wyoming Stable Coin](#)
- Launched the [Bitbon Token Factory Tool](#), a no-code platform designed to simplify token creation, management, and distribution.
- [Paxos announced](#) its integration with the Stellar network, bringing USDL to Stellar.
- Mastercard announced it will integrate the company's Crypto Credential solution with the Stellar network simplifying the user experience with payments and crypto transactions.
- Nonco and SwapGlobal completed the first derivatives transaction using Franklin Templeton's BENJI on the Stellar network.



# PRODUCT UPDATES: RAMPS AND WALLETS

*Increase adoption of ramps and wallets that are providing utility on the network.*

The objective for this quarter was to expand Stellar's retail user base by improving access to the network through enhanced on and off-ramps and by adding optionality and use cases to end users within Stellar's ever-growing wallet ecosystem.

## HIGHLIGHTS

- 4 new wallets went live with MoneyGram Access: Owlpay, Klickl, ZyptoPay and program's 1st hardware wallet Arculus.
  - All 4 wallets completed their integrations within a single quarter.
- In Q4 we saw, ~57% growth in monthly active accounts.
- And a 26% increase in new accounts from tracked consumer wallets.



# PRODUCT UPDATES: AID & DISBURSEMENTS

*Increase adoption of the utility that Stellar Aid Assist and the Stellar Disbursement Platform (SDP).*

The objective for this quarter were to deliver new institutional and end users, bring new volume to the network and tap into and innovate on Stellar's capabilities in order to meet the wide landscape of aid & payouts needs.

SDF is committed to transparency and openness, and open-sourced the Stellar Disbursement Platform (SDP) so that anyone in the world can benefit from this technology.

## HIGHLIGHTS

- Launched new features for improved onboarding and usability.
  - Known Wallet Address and Email Registration.
- Showcased the power of SDP with Beans activation at Meridian.
- Launch of Multi Tenant SDP.
- UNHCR continued geographic expansion of Stellar Aid Assist now in Argentina and Bolivia.
- UNHCR 2 year anniversary with ~\$4.6 million to 2500 households.
- Launched German Govt. (GIZ) Payroll Solution in Syria.

## SPOTLIGHT

**GIZ and UOSSM International** collaborated to launch a payroll project for hospital workers in northwest Syria.

- Reduced payment time **from 2-3 months to near-instant.**
- **100% of cash outs successfully processed** on the first attempt.
- At least **25% savings in administrative time.**

**100% of participants** in the pilot:

- Were **satisfied to completely satisfied.**
- **Want to continue** with the digital payment solution.
- Were **willing to advocate for the digital payment solution.**





# PRODUCT UPDATES: VIBRANT



*Increase adoption of the utility that Vibrant is providing on the network.*

The objectives for Vibrant this quarter were to prepare the systems and team for spinning off from SDF, grow the Vibrant community in LatAm, and make it easier to reach users with relevant content.

## HIGHLIGHTS

- Streamlined in-app marketing with Campaign Manager.
- Enabled seamless rewards distribution via the Stellar Disbursement Platform.
- Simplified prepaid top-ups for users in Argentina via Bidali.
- Finalized prepaid card setup for launch in Q1.
- Prepared to become independent from SDF!

With its growth, new feature launches, and targeted marketing internationally, Vibrant is driving real-user transactions, growth, and adoption of the Stellar ecosystem.

## KEY OUTPUTS

Overall, Vibrant saw strong growth and drove real-world use:

- Grew Telegram community by 10% and expanded social media presence to Brazil
- Steady USDC volume growth
- Through Vibrant Assist, continued to help support refugees receiving aid
- Grew Vibrant's user base 115% YOY in 2024

# FUNDING UPDATES

## Q4 Enterprise Fund Investments

SDF invested \$5M in [Chipper Cash](#), a fintech company serving 5M+ customers across Africa. Chipper Cash now enables seamless real-time cash-in and cash-out transactions via MoneyGram agents, powered by the Stellar network.

SDF made a \$600K investment in [Bitwave](#), a digital asset financial operations company delivering crypto accounting, tax, compliance, DeFi monitoring, Enterprise AP/AR and more to enterprise finance professionals. Bitwave was previously awarded grants through Stellar Community Fund #24 & #29, making financial compliance and reporting faster and simpler for builders on Stellar.

Investment of

**\$5.6M**

# FUNDING UPDATES

## Q4 Matching Fund Investments

SDF made a \$250K investment in [Atlas](#), a fintech startup that aims to leverage blockchain to streamline rental payment and property management process. This investment aims to bring network benefits and growth through the use of USDC on Stellar as the onchain transaction medium and as the preferred onchain store of value.

SDF also invested \$250K in [Nomyx](#), an end-to-end asset tokenization platform for traditional finance, enhancing Stellar's tokenization capabilities and RWA market value.

SDF invested \$150K in [alfred](#), a Latin American payments startup that bridges fiat payment systems to blockchain rails through automation. This investment is set to bring network benefits and growth through the use of USDC on Stellar and open new cash on and off-ramps across LatAm, an important and growing market for the Stellar ecosystem.

Investment of

**\$650K**

**05.**

**NORTH STAR 3:  
Trustworthy  
technology stack to  
advance adoption**

# PRIORITIZE SAFETY FOR SOROBAN

*Establishing a secure and resilient smart contract ecosystem.*

The objectives this quarter were to professionally audit key DeFi components and the Soroban runtime.

## HIGHLIGHTS

- Certora, the formal verification leader in web3 launched Sunbeam, a tool for verifying Stellar smart contracts.
- [Soroban Security Audit Bank](#), which is distributing up to 1 million dollars in security audit credits in coordination with six top-tier audit firms completed 6 new audits.
- A research grant was awarded for: "Detecting Logical Flaws in Smart Contract Bytecode" Mu Zhang U. of Utah

## KEY OUTPUTS

- All the DeFi protocols on Mainnet with meaningful value have been audited at least once.
- The security tools available for smart contract developers on Stellar are the highest quality in the industry.

# ADVANCE DIGITAL ASSET POLICY

*The objective this quarter was to continue building momentum around shaping digital asset policy worldwide by engaging with key policymakers, NGOs, central banks, and leading interest groups—and ensuring SDF remains a key voice in blockchain and crypto policy discussions.*

## HIGHLIGHTS

- CEO and Executive Director Denelle Dixon testified in front of the House Financial Services Committee on “How technology is shaping the future of finance,” and was featured at the Washington Post Live “The Future of Money” during DC Fintech Week.
- Collectively the Policy team attended, moderated, and spoke in 10+ conferences, panels, roundtables, and webinars in the US, UK, Europe, and Singapore.
- [“Why tokenization is key to the savings and investments union”](#) was published showing how the tokenization of financial instruments can unlock the European Savings and Investments Union.
- The team led a [response](#) to the call for contributions made by the European Commission's DG FISMA, highlighting how public blockchains like Stellar can offer the digital economy as much—if not more—stability, security, and resilience as any financial infrastructure used today.

# MARKETING HIGHLIGHTS

Drive awareness and engagement with the Stellar network.

The Highlights:

**Meridian 2024:** a resounding success, with sessions now available [online](#).

## Build Better Contest:

- + Launched to crowdsource new ideas for consumer apps on Stellar
- + Partnered with DAO FWB to feature David Nandwa, Founder & CEO of HoneyCoin, in a [builder spotlight](#) showcasing how he builds better
- + Next: a 2 week virtual hackathon inspired by top contest submissions

## World Tour Highlights – key Q4 events included:

- + London – Meridian, Digi-Assets Connect, Digital Assets Week
- + Bangkok – Devcon
- + Las Vegas – Money 20/20
- + Geneva – Aidex
- + Prague – Emergence (*SDF's first hosted marketing summit!*)

## Developer Ecosystem Growth (Electric Capital Developer Report):

- + Ranked 9th fastest-growing ecosystem
- + 6% growth in full-time developers
- + 33% growth in total developers
- + Added 500+ new developers this quarter



For two exciting weeks, we'll be participating in an array of events including insightful panels, interactive workshops, engaging talks, and hosting our own rooftop cocktail reception with partners OtterSec and Band Protocol.

Come join us at any of the following events.

- DeFi Security Summit, Nov 8 – 9
- Stellar After Dark at ABar Rooftop with OtterSec & Band Protocol, Nov 11
- SheFi Summit Bangkok, Nov 11
- Multichain Day, Nov 12

And many more!

# 2025: SCALING FROM 1 TO 10

*With the network now "feature complete," we are entering the next phase of growth: focused on acceleration, scale, and leveraging our strengths to lead in everyday financial services.*

**STELLAR RANKS IN THE  
TOP 10 DEFI**

**STELLAR RANKS IN THE  
TOP 10 OF MONTHLY  
ACTIVE ADDRESSES**

**STELLAR HAS \$3B IN  
ONCHAIN RWAS**



**06.**

# **MANDATE & DISTRIBUTION**

# MANDATE & DISTRIBUTION

## Overview

SDF is a non-profit organization whose mission is to create equitable access to the global financial system. SDF has no shareholders, no dividends, and no profit motive. The Foundation is funded by some of the lumens generated by the Stellar protocol at inception. Today, SDF holds roughly 19.5 billion lumens, and all of those lumens will eventually be used to enhance and promote Stellar.

Live accounting of the addresses with those lumens and funds are available on SDF's mandate page. SDF details exactly which ledger addresses hold those funds and exactly how those funds will contribute to Stellar's success. Anyone can observe progress towards SDF's stated goals, more or less in real time. The next slides cover a summary of how lumens were allocated in Q4 of 2024.

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# MANDATE & DISTRIBUTION

Lumen Distribution | October 2024 - December 2024<sup>1</sup>

Mandate Category	Wallet	Amount	Uses
Direct Development	Various	574,139,437	SDF Operations, Employee Grants
Ecosystem Support	Currency Support	11,658,838	Bitstamp, Ficc.ai, Decaf, Beans, Keyban, Cashlink, Nansen, JST Digital Trading, Settle Network, Tigerblocks
	Developer Support	42,556,155	SCF, Infrastructure, Ambassador Program, Validator Awards, Banxa, Coinspect, DataLego, EasyA, Noumena Digital, Stanford University, Tel Aviv University, Vendor Payments
User Acquisition	Enterprise Fund	59,336,537	Atlas Web3 Abundance, Chipper Cash, AlfredPay, Sovo Venture Fund
	Marketing Support	661,592	Vendor Payments, Meru Marketing Grant, Point Pay
Use-Case Investment	In-app Distribution	0	
	New Products	8,511,792	MoneyGram International Inc

<sup>1</sup> From time to time, SDF makes payments in dollars, and then later moves lumens from the relevant wallet into a Direct Development wallet. The amount of lumens is calculated using the price of lumens on the day of the dollar payment. This table compiles lumen distributions accrued in the quarter, even if the actual transfer occurred after the end of the quarter.

# MANDATE & DISTRIBUTION

SDF Account Balances as of January 1, 2025

Mandate Category	Wallet	Amount
Direct Development	Direct Development	3,113,552,385
	Direct Development Hot Wallets <sup>2</sup>	153,975,974
Ecosystem Support	Developer Support	340,379,812
	Developer Support Hot Wallet	31,512,031
	Currency Support	829,476,404
Use-Case Investment	New Products	1,495,439,565
	Enterprise Fund	7,309,532,749
Use-Case Acquisition	In-app Distribution	3,856,599,180
	In-app Distribution (Hot)	83,403,149
	Marketing Support	1,973,785,044

<sup>2</sup> SDF maintains multiple hot wallets, which in this chart are aggregated by category. A complete list of SDF accounts can be found on Stellar Expert (<https://stellar.expert/directory?tag1=sdf>) or on the SDF Mandate Page (<https://www.stellar.org/foundation/mandate>).

# NEXT REPORT: Q1 2025



[stellar.org](https://stellar.org)

