



Q4 2021: Quarterly Report

I Executive Summary

[Leading with Growth](#)

The Stellar Development Foundation (SDF) had plenty of successes to celebrate in 2021, with the Stellar network making enormous strides in terms of innovation and growth – a sign that SDF’s strategy, rooted in nurturing the Stellar ecosystem, is working.

Stellar connects to the traditional financial system across the globe through anchors, financial institutions that issue real-world assets on the network, serve as on/off ramps, or both. In 2020, the Stellar network had 20 anchors as of record. By the end of 2021, that number increased by +50%, with more anchors planning to join Stellar in 2022

To fully leverage the power of anchors and asset issuance on Stellar, SDF partnered with Circle and the Centre Consortium [to integrate the USDC stablecoin onto the Stellar network](#) in the beginning of 2021. Since then, USDC’s impact reverberated across the Stellar ecosystem, and businesses building on the network are able to leverage both the world’s leading digital dollar currency and Stellar’s fast speeds, low transaction fees, and interoperability for their own offerings.

The launch of USDC on Stellar presented advantages that attracted new players to the network, like MoneyGram International (MGI). Announced in October 2021, [MGI is integrating with the Stellar network](#) and facilitating payments through Stellar USDC to enable cash-in and cash-out in local currency for consumers, using USDC as the bridge between different currencies, with near-instant settlement. This capability ([currently live in pilot stage](#)) will connect millions of current and future MoneyGram users to the world of blockchain and digital assets, providing greater access to the global financial system and greater financial inclusion for all.



The Stellar ecosystem saw further support from SDF via the [Stellar Enterprise Fund](#). In 2021, the Enterprise Fund invested \$80.25M dollars in a total of 8 companies, representing 767% growth from the amount invested in 2020. This reflects significant progress in improving network participation and investing in local solutions while supplying resources to companies that are bringing new use cases to Stellar – examples include Wyre (fiat interoperability), Airtm (consumer spending accounts with US dollar savings), and Tala (digital financial services).

As part of its commitment to bringing new businesses to the Stellar ecosystem, SDF is re-launching its Marketing Grant Program with open applications to support the growth and user acquisition efforts of projects built on Stellar. These funds provide support for digital and offline marketing, in-app incentives, PR, communications, and more. This is just one part of what SDF offers in total grants and funding to projects building on and contributing to the growth of the Stellar network. To learn more about marketing grants and SDF's other sources of support, visit the new [Grants and Funding webpage](#).

To bring ever greater value to the Stellar ecosystem and community, SDF is committed to improving Stellar's technical capabilities overall. Earlier this year, Horizon 2.0 – the API that enables interaction with the Stellar network – was released, making running products and services on Stellar more efficient by introducing significant performance benefits. This upgrade allows businesses and developers to deploy Horizon with fewer resources and far greater flexibility.

Validators also voted to pass three Protocol Upgrades this year – [Protocol 16 to resolve network issues](#), [Protocol 17 to enable asset clawback](#), and [Protocol 18 to introduce Automated Market Maker functionality to Stellar](#). These upgrades demonstrate SDF's commitment to ensure that the network possesses the capabilities and features to support an increasing number of use cases and activity as the ecosystem continues to scale.

To build awareness of Stellar as the blockchain that people know and trust, SDF doubled down in event participation, sponsoring or participating in 54 external events in addition



to hosting 20 events this year, including Meridian 2021 – SDF’s largest event of the year in Q4. The virtual event, themed “Build Locally, Impact Globally,” featured 13 [sessions](#) with new content additions such as docsprints, demos, and tech talks. SDF’s marketing team also built out its [case study repository](#) and debuted a new [brand video](#), highlighting the possibilities of building on Stellar.

On the policy front, SDF actively engaged with policymakers and regulators, establishing itself as a trusted voice and expert on a wide range of blockchain and crypto-related topics. In the US, SDF advocated for revised text in the definition of “broker” put forth by the Bipartisan Infrastructure Deal, informed the President’s Working Group stablecoin report, and [testified before the US House Committee on Financial Services](#) about financial innovation, digital assets, regulatory frameworks, and more. Internationally, SDF assisted Nigeria-based ecosystem participants in navigating legislation passed earlier this year, co-authored the World Economic Forum’s recommendations for crypto regulatory framework design, and signed an MOU with Ukraine’s Ministry of Digital Transformation to support the development of Ukraine’s digital economy. At the end of the year, global fintech Bitt and TASCOMBANK, one of Ukraine's oldest commercial banks, launched [a pilot project to issue an electronic hryvnia](#) on Stellar.

The following report details these key accomplishments and more below.

Stellar in the News

- [CoinDesk First Mover: Moneygram Partners With Stellar, USDC For Blockchain-Based Payment](#)
- [MoneyGram Partners With Ripple Competitor Stellar, Will Settle Transactions With USDC Stablecoin](#)
- [MoneyGram Customers Can Soon Convert Cash to USDC](#)
- [MoneyGram Partners With Stellar Development on Blockchain Deal](#)
- [MoneyGram looks to Stellar and USDC to enable local currency payouts](#)
- [MoneyGram launches USDC settlement using the Stellar blockchain](#)
- [Stellar and Cardano Show the Power of College Partnerships](#)
- [Tala Raises \\$145 Million Series E To Expand Account And Crypto Capabilities](#)
- [Tala, fintech for the underbanked, raises \\$145 million to expand globally and into crypto](#)
- [Tala Grabs 145 Million to Offer More Financial Services in Emerging Markets](#)

- [Fintech Tala Raises \\$145M to Launch Crypto Product for Emerging Markets](#)
- [Stellar partners tap USDC for remittances between Europe and Africa](#)
- [Fintech Impact Podcast Episode 198: Denelle Dixon](#)
- [Stellar Validators Vote In AMM Integration That Could Boost Liquidity](#)
- [The Blockchain.com Podcast Episode 47: Justin Rice on the Stellar network](#)
- [Congress gets a crash course on cryptocurrency.](#)
- [The crypto trade: Crypto exchange CEOs head to the Hill](#)
- [Crypto firm top executives to testify before Congress](#)
- [House committee announces crypto CEOs will testify at Dec. 8 hearing on digital assets](#)
- [Crypto Executives Defend Industry as Congress Considers Oversight](#)
- [CoinDesk First Mover: Stellar Development Foundation CEO on US Crypto Regulation](#)
- [Tribal Credit taps Bitso and Stellar to enable cross-border B2B payments](#)
- [Tribal Credit, Bitso and Stellar Development Foundation unveil cross-border payment tool in Mexico](#)
- [Ukrainian bank uses Stellar to launch electronic hryvnia pilot](#)
- [Ukraine Commercial Bank to Test Digital Currency Built on Stellar](#)
- [‘Think of stablecoins like a Disney pass’: Payments predictions for 2022 \(Part 2\)](#)
- [Crypto mainstream adoption: Is it here already? Experts answer, Part 1](#)
- [5 predictions for bitcoin, NFTs and the future of money](#)

Virtual and Live Events

- [European Blockchain Convention: Communicating Utility to Grow a Network](#)
- [The Takeover: The Future of Blockchain](#)
- [The Global Fintech Warming: Democratizing Fintech with Blockchain](#)
- [P2P Financial Systems International Workshop: CBDC panel](#)
- [Fintech Abu Dhabi: Can decentralised finance and compliance co-exist?](#)
- [Digital Assets and the Future of Finance: Understanding the Challenges and Benefits of Financial Innovation in the United States](#)
- [Meridian 2021](#)
- [LA Blockchain Summit / Stellar's next wave: AMMs, new partnerships and more](#)
- [Open Protocol Discussion \(10/28/21\)](#)
- [Blockchain Camp ecosistema cripto en América Latina](#)
- [Money 20/20: 'Increasing Financial Access & Services with Tokenization'](#)
- [Global SME Finance Forum: Greening SME Finance](#)
- [DC Fintech Week: CBDCs, a platform for all?](#)
- [Techstars Startup Weekend Blockchain Latam with Visa and Stellar](#)
- [Open Protocol Discussion \(10/14/21\)](#)
- [Stellar Development Foundation Q3 2021 Review](#)
- [Blockchain NYC virtual meetup: Understanding Stellar](#)
- [Reimagina las finanzas con blockchain](#)

- [Revolutionizing Cross-Border Payments with Stablecoins](#)
- [INC Corporate Venture Capital Conference in Monterrey, Mexico](#)
- [Virtual Trade Mission to Singapore for blockchain, cryptocurrencies and digital asset funds](#)

II Network Stats

To measure and assess growth of the network over time, SDF has established a select group of metrics to track throughout 2021 and compare year-over-year to their 2020 equivalents: total accounts, total payments, average daily decentralized exchange (DEX) volume, and total operations processed.

On all measures compared YoY (Q4 2020 to Q4 2021), the Stellar network saw significant growth. Total accounts (see figure 1) grew by 35.6% YoY, surpassing 6 million accounts in the last quarter of 2021. The number of total payments grew by 378% YoY, with 72.6 million payments made in Q4 2021 compared to 15.2 million in Q4 2020 (see figure 2). Average daily volume on Stellar's decentralized exchange (DEX) surpassed 126 million XLM per day (see figure 3). Total operations processed on the network continues to be one of the largest growth areas, surpassing 650 million in Q4 2021 alone (+186.3% YoY, see figure 4).

Figure 1. Total Accounts YoY
December 31, 2020 v. December 31, 2021

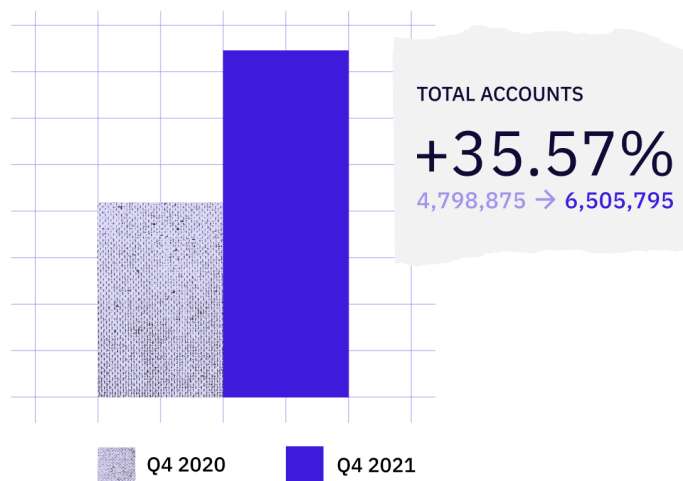


Figure 2. Total Payments YoY

October 1 to December 31, 2020 v. October 1 to December 31, 2021

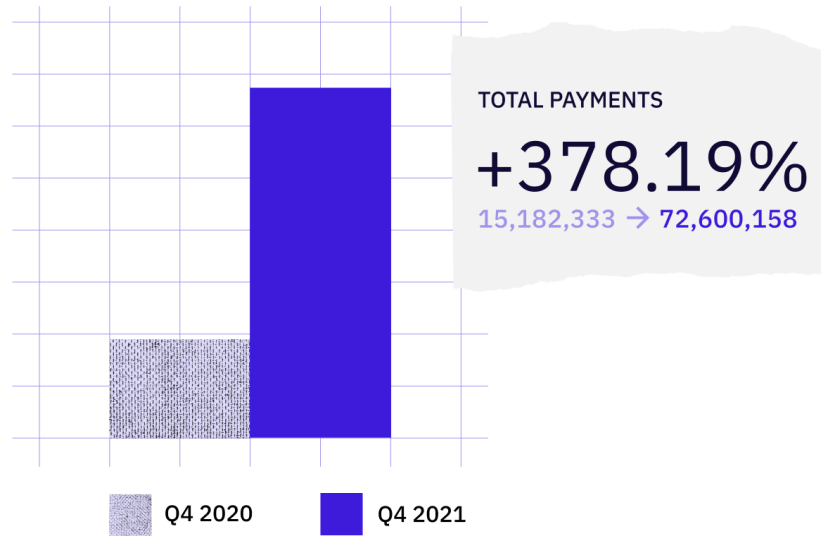


Figure 3. Average Daily DEX Volume YoY

October 1 to December 31, 2020 v. October 1 to December 31, 2021

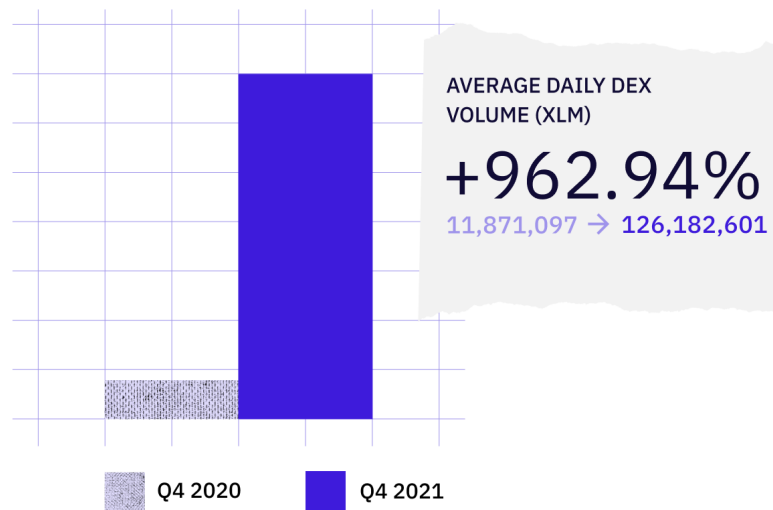


Figure 4. Total Operations Processed YoY

October 1 to December 31, 2020 v. October 1 to December 31, 2021



Overall, network growth has been phenomenal – in 2021, the Stellar network has officially processed 2 billion operations (+143.41%, see figure 5) and 156 million payments (+211.85%, see figure 6).

Figure 5. Total Operations Processed

FY 2020 v. FY 2021

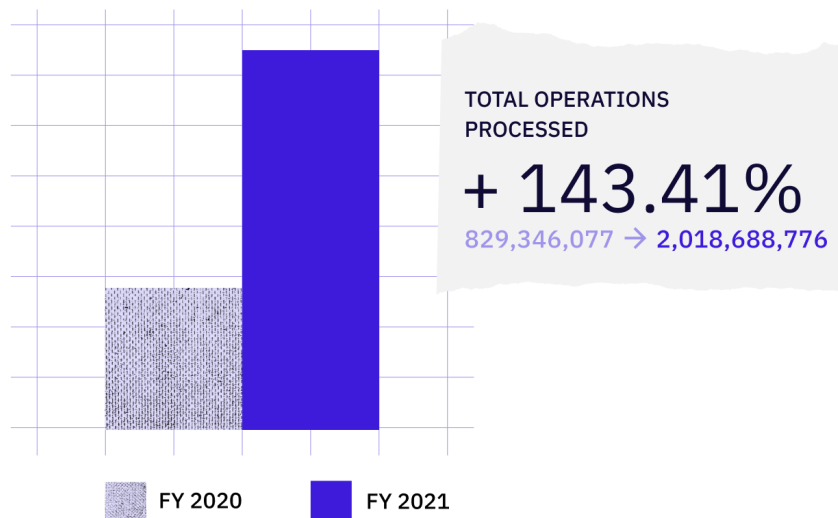
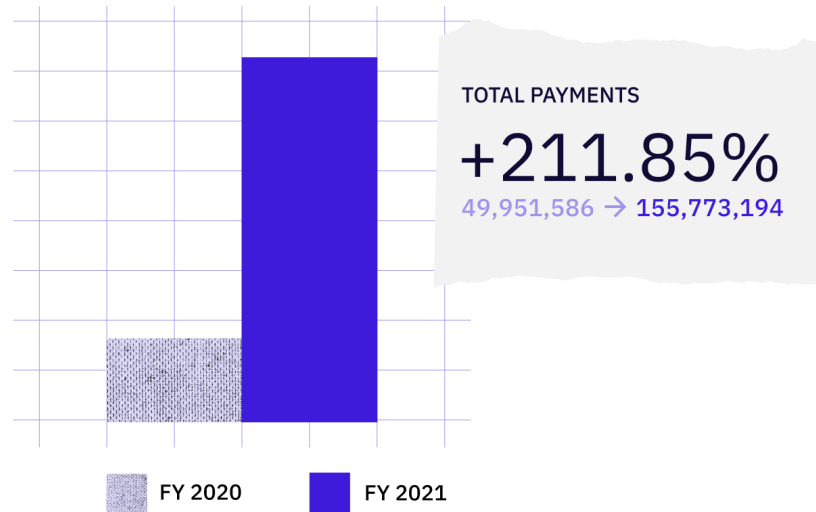


Figure 6. Total Payments
FY 2020 v. FY 2021



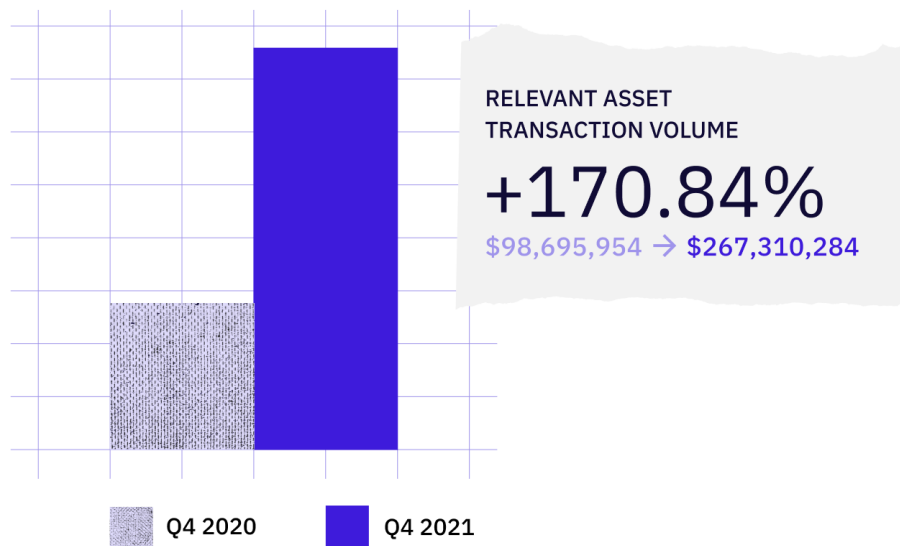
Relevant Assets

The above metrics serve as indicators of general usage of the network, while the following metrics look at relevant assets, which serve as indicators of how the network is being used. Usage of relevant assets answer the question of how well Stellar is moving towards connecting global financial systems. SDF defines a relevant asset as an asset tethered to a real financial instrument. When SDF measured the number of relevant assets in Q4 of 2020, the total number of these assets stood at 80 with transaction volume for the quarter amounting to \$98.7M. As of Q4 2021, the total number of relevant assets has increased YoY (up to 88 assets as of December 31, see figure 7) and the on-network transaction volume of relevant assets grew by almost 170.8% YoY (see figure 8).

Figure 7. Relevant Assets YoY
December 31, 2020 v. December 31, 2021



Figure 8. Relevant Asset Transaction Volume YoY
October 1 to December 31, 2020 v. October 1 to December 31, 2021



That relevant transaction volume number includes a \$20 million USDC loan SDF made to Tribal as part of the recently-launched Debt Fund (see the "USDC Updates" section below). But excluding that loan, there were still \$247,310,284 in relevant asset transactions, which is 150.6% year-over-year growth.

Nodes & Decentralization

Given the important role decentralization plays in the health and success of the network, SDF will continue to include the total number of nodes and validator nodes, as well as the average ledger close times completed by the network, in its quarterly reports through 2021.

The decentralization of the network (see figure 9 & 10) is consistent with last fiscal year — accounting for the same number of Tier 1 validator nodes and a slight increase in total nodes. Average ledger close time continues to clock in between 5 to 6 seconds (see figure 9).

Figure 9.

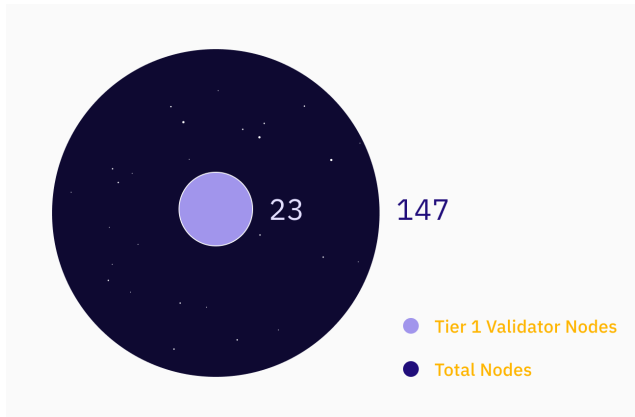
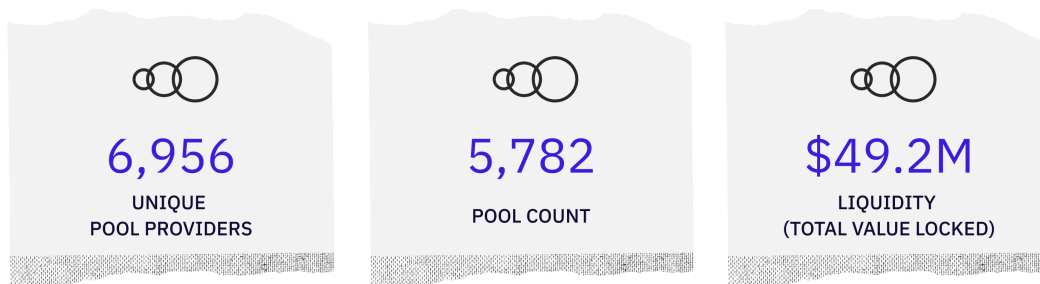


Figure 10.



In FY21, AMM functionality was introduced to Stellar, enabling participants to create and deposit into liquidity pools on the network. Below are several of the metrics SDF tracks in order to gauge performance and utility of this feature: 1. Unique Pool Providers, 2. Pool Count, and 3. Liquidity (Total Value Locked) (see Figure 11).

Figure 11.
December 31, 2021



III Network Development and Updates

General Engineering & Platform Updates

SDF's engineering team also delivered updated tools, documentation, and infrastructure to support future releases, including:

- Launching the [AMM Reference UI](#)
- Launching the [MoneyGram International pilot](#)



- Introducing [Starlight](#) – learn more about Starlight via the [tech talk](#) and [blog post](#)
- Refactoring the Laboratory codebase
- Rolling out support for Muxed Accounts

Protocol Update

On November 3, 2021, [Stellar validators voted to upgrade the network to Protocol 18](#), and Stellar became one of the first Layer 1 blockchains with a native protocol feature for Automated Market Maker (AMM) functionality. This made liquidity provision for cross-border payments on Stellar a more accessible and inclusive process, allowing third-party developers to create products and interfaces that give people access to liquidity pools between assets, and allowing users to deposit into those pools to help create liquidity for cross-asset conversion.

As noted before, a special aspect of this protocol is the collaboration throughout the Stellar ecosystem. SDF worked with the ecosystem to ensure everyone had the tools they needed to build products and services that harnessed AMM functionality well in advance of the network upgrade – an exciting protocol upgrade to close the year on.

Stellar Core Updates

A major release of Core shipped v18.0.0 with support for Protocol 18, which added Automated Market Maker functionality (AMMs) to the Stellar network.

Horizon Updates

In addition to supporting Protocol 18, the team implemented incremental scaling and performance improvements that resulted in:

- Ingestion: 30% speed up ([stellar/go#3917](#))
- Protocol 18 (AMM) support ([Horizon 2.9](#))
- XDR performance improvements ([stellar/go#2689](#))
- Marshalling: 30x speedup, 172x less memory allocated, 185x less allocations
- Unmarshalling: 11x speedup, 5x less memory allocated, 26x less allocations
- Pathfinding performance improvements ([stellar/go#4096](#))



- 320x faster and produces 77700x less allocations

[Latest Stellar Ecosystem Proposals \(SEPs\) and Core Advancement Protocols \(CAPs\)](#)

[CAP-0042](#), or Multi-part transaction sets, was drafted and aims to make it easier to keep fees low outside of certain types of network activity like trading.

[Vibrant Updates](#)

In Q4 2021, Vibrant continued to add more users in Argentina and provide more people protection from currency devaluation. Growth this past quarter was the wallet's strongest since launch.

Vibrant will add more utilities and anchors to the wallet in 2022. It will also expand into more countries to connect and empower communities with greater financial access.

Key stats for the quarter:

- Reached over 100,000+ installs
- 527% monthly active users growth quarter-over-quarter
- 334% total deposits+withdrawals operations growth quarter-over-quarter

New wallet features in 2022 to preview:

- Buy USDC with credit/debit cards via third party
- Send/receive via phone or email in addition to Vibrant usernames
- Buy e-gift cards via third party
- Additional anchor integration for more places to on/off ramp with Vibrant

In order to build all of the features above, Vibrant will be investing in and scaling up its foundation and infrastructure to support and service future growth.

IV Ecosystem and Partners

[New Partnerships, New Pathways](#)

The Stellar ecosystem is ever-growing, with new participants across the globe joining the mission to create greater equitable access to the world's financial system. Featured below are partners that have established new payment corridors on the Stellar network, bringing powerful financial solutions to the regions they support.

[Flutterwave](#)

2021 saw Flutterwave, a global payments technology company specializing in African payments, take its Stellar integration live and into production. In October 2021, Flutterwave announced the launch of two new remittance corridors with Tempo, a Paris-based money transfer company and long-time Stellar anchor. Flutterwave and Tempo now process remittances from Tempo's European customer base into two major African countries, via the Stellar network, for last mile payout by Flutterwave. With the initial two corridors now live, Flutterwave is preparing to roll out Stellar support to the rest of the 70+ countries in their payout footprint.

[Arf](#)

This past quarter, Arf, a global payment network enabling instant and compliant fiat-to-fiat cross-border payments by leveraging regulated stablecoins for Money Service Businesses (MSBs), launched its first live corridor on Stellar from Europe to the Philippines. New corridors will be activated in 2022, including Vietnam, six countries in LATAM, 30+ countries in Africa, Turkey, US, UK, Canada, UAE and HK. Arf's partnership with SDF enables its clients to leverage Stellar USDC as the preferred settlement asset in their remittance transactions while employing the technical capabilities of Stellar Ecosystem Proposals (SEPs). SDF will also connect Arf with other Stellar ecosystem partners to create new remittance corridors using the Stellar network and assets.

[Tribal, Bitso, and SDF](#)

Tribal, a B2B payment and financing platform for emerging markets, joined forces with leading Latin American crypto exchange Bitso and SDF to create instant and cheaper



cross-border payment services between Mexico and the US. Tribal's new service enables companies in Mexico to send B2B payments originating in Pesos to the US, where recipients will receive the payments in USD. On the backend, this service is powered through the Stellar network and USDC, increasing efficiency and speed while lowering costs for Tribal and its clients.

USDC Updates

To offer greater financial support for ecosystem participants, SDF launched a \$150M USDC Debt Fund. As part of the Debt Fund's first ever loan, SDF added \$20M worth of USDC to Tribal's recent funding round. Not only does this move reinforce Stellar USDC as the go-to stablecoin for projects using a digital dollar currency for settlement, but it also further supports the needs of these companies and removes roadblocks for fast-growing projects, ultimately driving toward SDF's goal of expanding financial inclusion and access.

Enterprise Fund Update

For 2021, SDF's roadmap included the goal of investing in one company per quarter through the [Stellar Enterprise Fund](#). In Q4, SDF made a \$5M investment in Bitt, a fintech company that enables central banks, financial institutions, and merchants to issue, manage, and use CBDCs. Bitt is currently engaged on CBDC projects in Ukraine, the Eastern Caribbean, and Nigeria, establishing itself as a leader in the space.

The Enterprise Fund wrapped up the year by making a total of \$80.25M in investments, nearly eight times the amount invested in 2020.

In addition to the Enterprise Fund's investments, the Fund's portfolio companies have been making significant strides on product development:

- Tribal partnered with Bitso to [launch a new B2B payment corridor](#) from the US to Mexico by facilitating Pesos-to-Stellar-USDC conversion.
- Wyre and Rehive announced [an integration](#) that provides fintechs with compliance, cash-in/out, and custody of end-user funds. The first phase will support USDC powered by the Stellar network.

Matching Fund

In Q4, SDF [announced](#) the Matching Fund, an investment track for early-stage startups (pre-Series B) seeking an investment of \$500K or less. The fund will match up to \$500,000 USD in investments made by a lead investor at a company and process deals through an expedited process.

The Matching Fund gives SDF more flexibility to invest in companies at the earlier stages of development and co-invest alongside investors globally. To be eligible, companies must meet the following three criteria: 1. raise capital from a lead investor, 2. build on Stellar, and 3. pass a screening interview. To learn more about the fund, visit [here](#).

Partner Spotlight: TASCOMBANK and Bitt

[TASCOMBANK](#), one of Ukraine's oldest commercial banks, launched a pilot project to issue an electronic hryvnia on Stellar. The objective of the project is to pilot the issuance of electronic money on an open blockchain with asset-control capabilities for issuers. TASCOMBANK will build and test the regulated electronic hryvnia on Stellar, and it will be deployed on [Bitt's](#) Digital Currency Management System (DCMS). The project is being implemented under the supervision of the National Bank of Ukraine and with the support of the Ministry of Digital Transformation.

Community Development

Stellar is home to a motivated community of startups, developers, and enthusiasts working together to build the future of finance. This quarter, SDF continued to grow, engage, and support that community through focused education and outreach, hackathons, and grant programs:

- The ninth round of the [Stellar Community Fund](#) concluded with a record-breaking 80 submissions, 12 winners, and approximately ~3.5M XLM awarded. The winners' projects tackled a range of use cases such as SDKs, NFTs, DeFi, cross-border payments, and remittances.

- The [Stellar Developers Discord](#) debuted, serving as a hub for all the Stellar-related servers (Stellar Global, Stellar Quest, Stellar Next Gen, Stellar Turrets). Over 700 members joined in the first month, displaying high engagement in the channel.
- The ecosystem team hosted the first-ever [doc sprint](#) at Meridian, receiving high engagement and excitement from the community. Over 400 attendees joined the Stellar DevDiscord, with approximately 100 online attendees constantly participating. 7 topic leaders spearheaded discussions spanning 6 active topics, and this event garnered 19 docsprint submissions and 22 NFT challenge submissions.
- [Stellar Next-Gen](#), an educational initiative geared towards the growth and development of future business leaders and developers, launched to positive response and press. As part of this program, SDF hosted 25 events, including guest lectures at universities, stand alone workshops, hackathons and bootcamps. It now encompasses:
 - 5 universities (UC Berkeley, Columbia University, National University of Singapore, University College of London, University of Nicosia)
 - 7 regional educational partners (Blockchain Academy Chile, Technica, Lumos Labs, Encode Club, Eidos Global, Minority Programmers Association, Institute for Technology & Society of Rio)
- Highly-beloved gamified coding experience [Stellar Quest](#) launched [Series 4](#), providing a rewarding challenge to experienced coders while providing a hands-on opportunity for people to learn how Stellar works:
 - 3,353 unique addresses across all 4 series (812 for series 4)
 - 25,579 total badges issued for all 4 series (4,143 for series 4)
 - 4 series in total (8, 8, 8 and 6 = 30 challenges for all four series)

V Visibility & Engagement

Marketing and Communications

SDF experienced a busy Q4 in terms of marketing, further generating awareness of major activity happening on the Stellar network and ecosystem.



Digital marketing efforts continue to grow in scale and effectiveness. SDF increased digital media spend in Q4, achieving a +300% vs. Q3 increase in digital ad clicks, along with a 17% drop in average CPM. Both paid and organic traffic to stellar.org increased in Q4, driving a +48% increase vs. Q3. In particular, SDF saw growth in people seeking developer-centric content on the site.

On the PR front, SDF engineered four major newsbeats, including the announcement of the MoneyGram International-SDF partnership, the launch of the Flutterwave-Tempo payment corridors, the introduction of AMM functionality via Protocol 18, and the pilot project to issue an electronic hryvnia on Stellar.

Money 2020 USA saw SDF's return to the live conference circuit, where SDF was a 4-star sponsor. In addition to an active booth presence (which featured Wyre), SDF also hosted a private breakfast (co-sponsored with Circle and featuring speakers from MGI, Wyre, and Flutterwave) and a track titled 'Increasing Financial Access & Services with Tokenization', where Denelle Dixon shared the stage with Stablecorp and Flutterwave. SDF appeared at 10 more events during Q4, including LA Blockchain Summit and Future of Fintech.

SDF also hosted its own event with Meridian 2021. Anchored on the theme "Build Locally, Impact Globally," SDF saw more than 3,600 registrants for the two-day virtual event, featuring speakers from within and beyond the Stellar ecosystem. All of the content (including sessions, demos and tech talks from SDF's development teams) from the two days is viewable on the [Meridian site](#).

In addition to publishing 16 blog posts and other written content in Q4, SDF continued its steady stream of video content, highlighted by both an in-depth [case study on Sunship's Vibrant wallet](#) product, as well as '[The Power of Stellar](#)' brand video.

Policy

Blockchain policy discussions in Washington, DC continued and deepened during Q4. The President's Working Group on Stablecoins issued their report in November, which



spurred the [House Financial Services Committee to hold a hearing on stablecoins](#). [They invited key CEOs in the space](#), including Denelle Dixon, to testify. The members, on the whole, expressed a genuine curiosity to learn more about the technology and the ways it can expand and enhance financial services. It was an excellent opportunity for [Denelle to make the case](#) that stablecoins are a critical component of a more equitable financial system and show the real use cases leveraging stablecoins on Stellar.

During the hearing, policymakers demonstrated receptivity to learning more and making sure stablecoins and the regulatory framework for them are a public-private collaboration that encourages innovation. That receptivity was borne by the numerous productive meetings and conversations that Denelle and the policy team had with members on both sides of the aisle throughout the quarter. The deepening of members' interest and increasing understanding of the issue of stablecoins, coupled with their willingness to engage meaningfully with industry, is a particularly encouraging signal that well-balanced stablecoin legislation is achievable in the U.S.

SDF prides itself on making meaningful contributions to its membership organizations and continued to do just that in Q4. The SDF Head of Policy & Government Relations co-authored a [report](#) from the World Economic Forum's Digital Currency Governance Consortium that focused on policy and governance issues surrounding CBDCs and stablecoins. [SDF also joined the Steering Committee for the World Economic Forum's Crypto Impact and Sustainability Accelerator](#) (CISA), which brings key industry leaders together to shape and unify the future of crypto-enabled Environmental, Social, and Governance (ESG) efforts.

In addition to joining CISA, the policy team renewed its focus on ESG by working together with the IFC and the G20 Global Partnership for Financial Inclusion to highlight the solutions introduced by ecosystem partners ClickPesa, Tribal, AirTM, Tala, and Flutterwave during the pandemic for small businesses customers. These technologies were included in the report "[MSME Digital Finance, Resilience and Innovation during the Covid-19](#)," which was endorsed by G20 Governors of Central Banks and Ministries of Finance. The policy team is also working together with policymakers, regulators, and an international organization in Latin America to gather data on the cost and timeframe of



using blockchain and stablecoins for cross-border payments, and to embed financial education in the consumer experience when using stablecoins for cross-border payments.

The policy team also led an increasing number of initiatives in the CBDC space. SDF launched a whitepaper titled “[CBDCs on Stellar](#),” covering which features of Stellar are most relevant to asset issuance (including central banks considering CBDCs), how to implement a CBDC on Stellar, and Stellar’s novel consensus algorithm (the Stellar Consensus Protocol) in comprehensive detail.

SDF was also selected as a finalist of the Global CBDC Challenge held by the Monetary Authority of Singapore (MAS). SDF together with ecosystem partner Bitt presented a demo of a CBDC solution at the Singapore Fintech Festival. The CBDC solution was also included in a recently published [MAS report](#). The policy team continued supporting the efforts to test minting, P2P, merchant acceptance payments, and programmable payroll of public sector employees in Ukraine.

SDF’s policy team continues to be a strong voice in the industry, participating in speaking engagements hosted by universities and associations worldwide. This form of participation is crucial in order to advocate and educate policymakers and regulators on the role blockchain can play in furthering financial inclusion.

VI Mandate and Distribution

[Mandate 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 30 billion lumens, which 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. Below is a summary of how lumens were allocated in Q4 of 2021.

Q4 Mandate Status

The below table summarizes SDF's use of lumens in the fourth quarter.

Table 1. Lumen Distribution October 1 - December 31, 2021

Mandate Category	Wallet	Amount	Uses
Direct Development	Various	828,275,335	SDF Operations
Ecosystem Support	Currency Support	2,774,694	Biccos, nTokens, ClickPesa, Shift, Settle, JST
	Developer Support	6,826,279	Blockathon, Hack Africa, SDK, SCF, Infrastructure, Meridian Awards, DFS, Techstars, Pinnacle, SatoshiPay R&D, Tascombank, Mushu Media, Fonbnk
User Acquisition	Enterprise Fund	21,722,760	Bitwage, Fanvestor, Bitt, Trace Holdings
	Marketing Support	378,873	CoinQvest, Lobstr, ClickPesa
Use-Case Investment	In-App Distribution	2,225,000	Vibrant Distribution, Stellar Quest
	New Products	14,460,004	MoneyGram

The table below reflects the ending balances in SDF's wallets as of January 1, 2022.

Table 2. SDF Account Balances as of January 1, 2022

Direct Development	Direct Development	1,293,747,460
	Jan 1 2021 Escrow	0
	Jan 1 2022 Escrow	3,000,000,003
	Jan 1 2023 Escrow	3,000,000,003
	Direct Development Hot Wallets ¹	102,894,316

¹ 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?tag\[\]=sdf](https://stellar.expert/directory?tag[]=sdf)) or on the SDF Mandate Page (<https://www.stellar.org/foundation/mandate>).

Ecosystem Support	Developer Support	895,158,646
	Developer Support Hot Wallets	19,623,220
	Currency Support	963,134,288,
Use-Case Investment	New Products	1,985,539,997
	Enterprise Fund	7,738,011,898
User Acquisition	In-App Distribution	3,924,381,680
	In-App Distribution (Hot)	26,320,647
	Marketing Support	1,999,140,954