Q3 2021: Quarterly Report

I Executive Summary

Big Moves, Big Impact

The Stellar Development Foundation rides its strong momentum from the previous quarter into the third quarter as it executes around the three strategic pillars of its 2021 roadmap: supporting the robustness and usability of Stellar, helping Stellar be the blockchain people know and trust, and fostering and developing sustainable Stellar use cases for cross-border payments and securitized assets.

In Q3, SDF worked on adding the most significant new feature to Stellar since its inception: the ability to create Automated Market Makers (AMMs). With AMM functionality, developers will be able to integrate and offer exciting user-facing services, allowing users to create and deposit into liquidity pools on the network. This enables cheaper, faster, and highly usable cross-asset payments, as well as democratizes market making by opening up participation in liquidity provision. It's an exciting development not only because Stellar is the first layer 1 blockchain to incorporate AMM functionality at the protocol level, but also because SDF and the greater Stellar ecosystem collaborated to accelerate development so that the AMM functionality will be immediately available to end users if and when validators vote to accept to Protocol 18 upgrade on November 3rd.

Q3 also has been a quarter of exciting investments and partnerships. One of those investments was in Tala where SDF contributed $40 million to a $145 million Series E investment round. Tala is a mission-driven fintech whose vision of creating financial inclusion aligns closely with that of SDF’s. Best known for their mobile lending app where users can apply for and receive microloans instantly without a credit history, Tala has begun expanding its product offerings.
The Series E investment round will support Tala’s efforts to build out digital banking capabilities for the two billion underbanked population so users can borrow, spend, save, invest, and send/receive using Stellar assets and stablecoins. With this investment, the Stellar network extends its global reach deeper into four countries and millions of Tala users.

The exciting developments for the Stellar ecosystem move forth at a rapid fire pace:

- **Arf and Tempo** launched a payments corridor between Europe and the Philippines, with Tempo converting senders’ Euros into Stellar USDC and Arf facilitating the USDC to a local payout partner who then converts it into local fiat on the receiving side.
- Spanish startup **Vottun** will integrate its intra-company payments solution onto Stellar for the **Spanish Regulatory Sandbox** with support from professional services firm PwC and SDF, enabling corporate clients to tokenize intra-company payments using Stellar-based digital currencies and seamlessly execute and settle payments.
- **VersaBank and Stablecorp** announced their intention to commercially launch VCAD, a Canadian dollar stablecoin that is the first to be issued by a North American bank.
- Stellar USDC is now available on leading Asian crypto exchange **Liquid**. By providing users with fee-free USDC withdrawal capabilities to help its customers maximize benefits of the digital dollar currency, Liquid looks to increase interoperability, solve issues arising from recent spikes in blockchain fees, and improve service levels for their customers.
- Latin American crypto exchange **Bitso** has begun integrating Stellar USDC for its customers, using USDC as a bridge asset and the preferred on/off ramp asset between Mexico and the US. This lowers costs, accelerates transactions, and allows its two million+ users to benefit from a cheaper USD <> MXN payment rail.

To establish Stellar as the blockchain that people know and trust, SDF offers its perspective on the most pressing issues in blockchain. Central bank digital currencies (CBDCs) have been top-of-mind for central banks, who see an opportunity to help people gain access to financial services but want to assess the risk in adopting CBDC technology. SDF explained why Stellar is well-suited for the issuance of CBDCs in a **white paper**, including how to execute a CBDC on Stellar and a primer on the Stellar Consensus Protocol (SCP), the engine that drives the network.
SDF’s policy team continued to support the development of CBDC solutions by participating in sandboxes and testing CBDC tools. SDF, together with Bitt, were selected as finalists of the Global CBDC Challenge held by the Monetary Authority of Singapore to develop and showcase a retail CBDC solution. As part of this submission, the Bitt Digital Currency Management System will be integrated with the Stellar network, which provides asset issuers like central banks certainty, safety, and control with respect to their digital currency, as well as the openness and interoperability of a permissionless network that fosters innovation and competition.

Sustainability and energy consumption have also been hot topics in the blockchain industry. Wilhelm Wanecek published a thesis on the electricity consumption of the Stellar network, with the goal of obtaining a generalized estimate of the electricity use of a payment transaction. He summarized and discussed his findings in a blog post, including the method used to derive them. SDF is supporting additional research and academic analysis to paint a more complete picture of the energy usage – and by extension, sustainability – of the Stellar network.

Engaging with policymakers has been a top priority for SDF this quarter. In the US, Congress maintained an active hearing schedule on blockchain topics. A landmark infrastructure bill with potential implications for blockchain participants initiated a wider blockchain industry advocacy effort in which SDF participated throughout the quarter across policy advocacy, media outreach, and stakeholder meetings. SDF continued to support the development of Ukraine’s digital economy, welcoming Ukrainian President Volodymyr Zelenskyy to Silicon Valley, while a SDF delegation travelled to Ukraine to meet with the Ministry of Digital Transformation and other stakeholders.

All of the progress SDF has seen this past quarter and year would not be possible without its employees. In July, SDF was certified as a Great Place to Work, validating the organization’s commitment to fostering a supportive and equitable work environment. 82% of SDF’s employees participated in the Index Survey, and SDF netted a 96% overall positive response rate – well over the required minimum of 65%.
To tie together all of the accomplishments made this past year, SDF will be hosting Meridian 2021 on November 17th-18th. Registration for the conference is now live, so visit the site for updated information on speakers, the agenda, tech talks, and more.

The following report further details this progress and other key accomplishments on the 2021 roadmap.

**Stellar in the News**

- [Stellar: Risk Of Regulatory Overshoot Threatens Blockchain, Crypto Innovation and Growth](#)
- [Crypto-Based Remittances on the Rise; Nigeria Leads the African Pack](#)
- [Peruvian stablecoin launches on Stellar blockchain](#)
- [As China Bans Crypto, Fed Chair Powell Signals More to Come on U.S. Digital Currency](#)
- [Stellar Development Foundation anuncia una subvención para la startup española Vottun](#)
- [Stellar CEO: Bitcoin, Stablecoins Will Transform El Salvador’s Economy](#)
- [The Earnings Crunch Is Getting Real (Podcast)](#)
- [Stellar: Blockchain Is the Next Big Disruptor of the Cross-Border Payments Category](#)
- [Let’s be clear: Blockchain technology is infrastructure](#)
- [VersaBank Initiates Closed Ecosystem Testing of Revolutionary VCAD Digital Deposit Receipts on Stellar Blockchain](#)
- [Asia’s Liquid Exchange Adds USDC on Stellar as Global Stablecoin Demand Jumps](#)
- [What is really behind El Salvador’s ‘Bitcoin Law’? Experts answer](#)

**Virtual Events**

- [Blockchain Bootcamp with DFS Lab](#)
- [Digital Asset and CBDC Compliance panel](#)
- [Cryptocurrency and the Global Market panel](#)
- [GBBC Blockchain Central UNGA Panel](#)
- [Open Protocol Discussion (9/9/21)](#)
- [REIMAGINE 2021: Crypto Made Money Cool Again](#)
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 (Q3 2020 to Q3 2021), the Stellar network saw significant growth. Total accounts (see figure 1) grew by 23.3% YoY, nearing 6 million accounts in the third quarter of 2021. The number of total payments grew by 149% YoY, with 29.9 million payments made in Q3 2021 compared to 12 million in Q3 2020 (see figure 2). Average daily volume on Stellar’s decentralized exchange (DEX) surpassed 13 million XLM per day (see figure 3).

Total operations processed on the network continues to be one of the largest growth areas, surpassing 643 million in Q3 2021 alone (+219.7% YoY, see figure 4). In combination with Q2’s total processed operations of 430 million, the Stellar network has officially processed 1 billion operations this year.
Figure 1. Total Accounts YoY
September 30, 2020 v. September 30, 2021

TOTAL ACCOUNTS
+23.30%
4,649,851 → 5,733,310

Q3 2020  Q3 2021

Figure 2. Total Payments YoY
July 1 to September 30, 2020 v. July 1 to September 30, 2021

TOTAL PAYMENTS
+148.72%
12,004,902 → 29,858,680

Q3 2020  Q3 2021
Figure 3. Average Daily DEX Volume YoY
July 1 to September 30, 2020 v. July 1 to September 30, 2021

Average Daily DEX Volume (XLM)

+161.19%
4,972,318 → 12,987,227

Q3 2020   Q3 2021

Figure 4. Total Operations Processed YoY
July 1 to September 30, 2020 v. July 1 to September 30, 2021

Total Operations Processed

+219.72%
201,382,849 → 643,868,783

Q3 2020   Q3 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 Q3 of 2020, the total number of these assets stood at 79 with transaction volume for the quarter amounting to $53 million. As of Q3 2021, the total number of relevant assets has increased YoY (up to 89 assets as of September 30, see figure 5) and the on-network transaction volume of relevant assets grew by almost 338.5% YoY (see figure 6).
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 7 & 8) 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 7.
Total Nodes

### Figure 8.
Validator Nodes

### Figure 9.
Average Ledger Close Time

**TOTAL NODES**

**129**

**TIER 1 VALIDATORS**

**23**

**AVERAGE LEDGER CLOSE TIME**

**5.5106s**

III Network Development and Updates

**Protocol 18 and Automated Market Maker (AMM) Functionality**

A large portion of SDF’s work this quarter focused on implementing and preparing for the Protocol 18 upgrade, which (assuming validators approve it) will add AMM functionality to Stellar. SDF has made improving liquidity a top priority on its 2021 growth plan – but why?

Market liquidity, which allows the quick and efficient exchange of assets at stable and transparent prices, is fundamental to the network’s success. But to create and sustain a market, people have to be willing to add liquidity onto the network and use that liquidity
to facilitate asset conversion. Currently, there’s only one way to do that – creating orders on order books. Placing and maintaining orders is complex and expensive, so order book liquidity provision tends to be the domain of professional market makers, who prioritize key asset pairs with high trading volumes. As a result, new assets and markets are sometimes left with insufficient liquidity to match Stellar’s potential for quick and seamless transactions.

Enter **AMMs** – autonomous trading mechanisms that use an underlying formula to value two assets relative to one another. AMM functionality on Stellar has the potential to provide easy-to-access liquidity at scale, especially for new markets and markets currently overlooked by market makers.

That’s because providing liquidity through AMMs on Stellar requires just a single operation, and the liquidity pool adjusts prices programmatically, removing the need to manually update orders to manage risk. When trades execute against a liquidity pool, they incur a small fee, and the pool collects those fees and distributes them to liquidity providers. Those fees — along with the relative ease of participation — have allowed AMMs on other networks to scale at a very fast pace by effectively crowdsourcing liquidity.

This liquidity can then create substantial depth (measured in the amount of units available to be bought and sold) at narrow widths (measured by the spread between buy and sell prices), both of which contribute to minimizing slippage (a measure of price impact or “cost” for a conversion) — a huge boon to a network that optimizes for cross-border payments and remittances. With the advent of AMM functionality, asset issuers will no longer need to rely on market makers to stock order books: they can simply create liquidity pools and allow individual users to provide liquidity by depositing into them.

In order to bring this new functionality to the network as soon as possible, SDF proactively coordinated with ecosystem developers to ensure they had the tools needed to build products and services that harness AMM functionality before the protocol design was even finalized. Many developers are preparing their launches to coincide with the
early November upgrade vote, which means that, unlike past protocol rollouts, there will be no delay between network upgrade and feature availability. In addition to actively soliciting early feedback, SDF also created a suite of resources for first-wave ecosystem developers, including an API spec, a mock API environment, and an early testing environment dubbed the ‘Futurenet.’ These resources allowed the ecosystem to spec, build, and test AMM integrations almost two months in advance of last week’s testnet upgrade to Protocol 18, time which proved invaluable. If Stellar validators vote to accept the upgrade, real-world users will immediately be able to use those products and interfaces to create, deposit into, withdraw from, and trade against liquidity pools.

Below is some of the work done to implement Protocol 18 and help the ecosystem prepare for the network upgrade:

- SDF’s Core team made changes to support Protocol 18 to support AMMs natively on Stellar.
- Horizon fully implemented AMM support for Protocol 18 in preparation for the core protocol update in Q4.
- Freighter, Laboratory and Account Viewer added AMM support.
- SDF created new and noteworthy documentation around AMMs in addition to the story of AMM development on Stellar:
  - Introducing Automated Market Makers on Stellar
  - Fast-forwarding Stellar AMMs
  - Liquidity Pools - Stellar Documentation
  - Developers Blog - Protocol 18 Upgrade Guide
  - Developers Blog - Liquidity, liquidity, liquidity

**General Engineering & Platform Updates**

On top of Protocol 18 work, SDF’s engineering team also delivered updated tools, documentation, and infrastructure to support future releases. Among other things, they:

- Modernized the Lab codebase, including extensive tests to improve feature velocity and minimize regressions.
● Released the [Stellar Design System](#), an opinionated React component library used in Stellar Development Foundation’s web projects to provide a unified, familiar, experience across all Stellar tooling.

● Continued work on Starlight, a research project focused on increasing overall throughput of payments using Stellar to support 50K transactions/sec. This is to address specific payments use cases where enterprises need real-time, high-throughput B2B payments and settlement support. The team has completed an initial [Payment Channels protocol and SDK](#) prototype that support one-hop payment channels with TPS and scalability improvements. The protocol is dependent on [CAP-21](#) and [CAP-40](#) that add transaction preconditions and atomic transaction signature disclosure to the Stellar protocol. CAP-21 will also unlock new capabilities on Stellar like HTLCs.

● Made ongoing improvements in Polaris, which is a reference toolbox for developing Stellar anchor services. Added support for Wyre, Circle, and BitGo for custodial support of the SEP-24 deposit and withdrawal flows.

● Worked on the rollout of [muxed accounts](#), which add native support to Stellar for addressing sub-accounts of a single pooled account. Among other benefits, muxed accounts eliminate the need to add account information into the memo field. In the last quarter, multiplexed account support was added to the account viewer. In addition, Stellar.Expert and Steexp.com now support transaction discovery using the multiplexed account address. As part of the rollout effort, SDF is coordinating upgrades across 20+ ecosystem partners, including wallets and exchanges. This is anticipated to be a multi-quarter effort, with significant benefits in accuracy and simplicity for custodial services.

**Vibrant Updates**

Vibrant, a wallet app developed on Stellar by a team at Sunship, Inc., a subsidiary of the Stellar Development Foundation, helps Argentines protect themselves from inflation with USDC. Over the past quarter, the team:

● Expanded user acquisition activities and saw greater demand for USDC due to rising inflation in Argentina, increasing new user acquisition by 114%;

● Optimized Vibrant’s onboarding experience, improving conversion rates by 18%;
- Launched a cross-functional subteam focused on growing average balances per user, increasing average balances by 95%.
- Built an exciting new feature coming to Vibrant in Q4;
- Distributed a new video describing Vibrant’s value proposition; and
- Participated in the Argentine crypto community, speaking at the Descentralizar Conference and at the University of San Andres.

**Horizon Updates**

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

- 10x improvement in path finding endpoints;
- 30% improvement in ingestion speed via batched offer processing;
- 40x improvement in trade aggregation efficiency; and
- Overall improved transaction submission under high load.

The team also conducted several analyses to model future growth and scaling needs to inform future designs and made ongoing quality and security improvements to SDK’s and services.

**Latest Stellar Ecosystem Proposals (SEPs) and Core Advancement Protocols (CAPs)**

Stellar Ecosystem Proposals are specifications allowing ecosystem participants to build extra-network infrastructure so they can interoperate easily to facilitate multi-party transactions. Core Advancement Proposals are technical suggestions for changing the protocol itself to expand Stellar’s functionality to meet ecosystem needs. Together, they are a good indication not only of where Stellar is now, but also of where it’s headed next.

In Q3 2021, there was notable progress on both fronts.

At the end of the third quarter, SDF completed SEP-23, which defined a canonical representation for encoding Stellar account IDs, muxed accounts, and other signers of Stellar transactions. That SEP improves interoperability in part by standardizing the treatment of pooled accounts, which many wallets and custodians use to map a single Stellar account to multiple internal user accounts to reduce complexity and overhead.
Pooled accounts are increasingly common and important to the ecosystem, and so this quarter, we continued to focus on increasing support for them. To that end, we added memo-based (and muxed-account-based) pooled account support to the Stellar on/off ramp standards. Now anchors that interoperate with wallets to authenticate user sessions, collect information (including KYC), and authorize fiat deposits and withdrawals can easily expand their offerings to products and services that rely on the pooled account model.

In addition, SDF continued to increase support for the new Request for Quote (RFQ) API spec (SEP-38), which allows anchors to accept off-chain assets in exchange for different on-chain assets, and vice versa. Now, SEP-6: Deposit and Withdrawal API, SEP-24: Hosted Deposit and Withdrawal, and SEP-31: Cross-Border Payments API allow the currency used in a payment to differ from the destination asset, so users can, for instance, pay in ARS for USDC. By allowing anchors more flexibility in terms of the assets they accept, these changes can decrease liquidity fragmentation on the decentralized exchange, and lead to greater market depth and tighter spreads between trading pairs.

Finally, to help ecosystem participants improve their SEP implementations, SDF released a new version of Anchor Validator, a test suite for Stellar anchors to validate their SEP-6, SEP-24, and SEP-31 implementations, with an all-new backend and a more intuitive user experience.

On the CAP front, much of the quarter was spent putting the finishing touches on CAP-0038 (Automated Market Makers), which is remarkable since, as mentioned above, implementation of the feature it describes is complete, and launch is imminent. SDF also continued to lay the groundwork for building payment channels on Stellar via CAP-0021 (Generalized transaction preconditions) and CAP-0040 (Ed25519 Signed Payload Signer for Transaction Signature Disclosure), both of which suggest protocol changes that make it easier to create the conditions necessary to cooperatively open and close channels that settle on the main network. SDF will continue to iterate on those CAPs over the next quarter as it experiments with payment channels and explores their potential to significantly increase network throughput.
IV  Ecosystem and Partners

**Leveraging Stellar USDC On-Chain to Support the Ecosystem**

SDF is focused on providing innovative financial support for those building and growing the Stellar network via grants, the [Stellar Community Fund](#) and the [Enterprise Fund](#), totalling nearly $100 million USD in value since 2019.

To offer greater financial support for ecosystem participants, [SDF moved $150 million of Stellar USDC on-chain](#) to serve as a pool of flexible capital that can be quickly deployed to help projects that revolve around creating new pathways and enabling cross-border payments and remittances. 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.

This quarter, SDF saw relevant transaction volume increase (see figure 6 above), including the $150 million in USDC: $232,312,882. But even without the USDC amount, there was $82,312,882 in relevant asset transaction volume, which still represents 55.36% year-over-year growth.

**Enterprise Fund Update**

For 2021, SDF’s roadmap outlines the goal of investing in one company per quarter through the [Stellar Enterprise Fund](#). For Q3, the Stellar Enterprise Fund surpassed its quarterly goal with two investments: Tala and Rehive.

These investments total $40.75 million made in Q3 2021, bringing the Enterprise Fund’s investment total to $65.25 million YTD. SDF is currently on track to meet its Q4 investment goal.
With SDF’s $40 million Series E investment into Tala, Denelle Dixon will be joining the board. SDF invested alongside existing investors like IVP, Revolution Growth, PayPal Ventures, and Lowercase Capital and new investors like the J. Safra Group, Upstart, and Kindred Ventures in the round.

SDF also put $750K into Rehive, a South African company that provides custom branded payment solutions that leverage stablecoins and digital assets, who has been building on Stellar since 2017. Rehive also built a database and ledger with interface, extensions marketplace, and white-label wallet solution. Its top use case is enabling payouts for customers.

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

- Satoshipay launched a prototype node of the Pendulum Network and a fiat-to-fiat AMM smart contract. Pendulum is a layer two blockchain on Stellar that connects Stellar to the wider DeFi ecosystem by adding smart contract support and bridges to Ethereum and Polkadot.
- Tribal Credit is launching a pilot with Bitso to streamline USD payouts in Mexico.

**Partner Spotlight: Arf and Bitso**

*Arf*, an anchor-as-a-service provider, joined Stellar with the intent to connect their clients, both existing and new, to the network. Arf will enable each geography that it already covers using Stellar’s SEP-31 interoperability protocol, starting with Philippines (live), Colombia, and Turkey (Q4). After those first three, Arf plans to expand to 10+ new geographies in Latin America, Europe, Africa, and Asia.

*Bitso*, a Latin American crypto exchange that supports Mexico, Argentina, and Brazil, expanded its remittances capabilities by joining forces with Stellar. Stellar USDC will be their preferred on/off ramp in the US, especially for remittances and payments. To leverage Bitso, SDF is launching a pilot project with *Tribal*, where TribalPay users will benefit from 24/7 and better FX rates on their USD payouts using USDC and Bitso on the backend. Five other companies are on the "wait-list" to join the pilot.
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.

SDF kicked off the quarter sponsoring two virtual hackathons — Hack Africa and Defi Summer — both of which challenged developers to prototype solutions to real-world problems; both of which saw Stellar-based projects winning top prizes. SDF followed those up with its first in-person hackathon in over a year, Pinnacle, where even though there were many noteworthy sponsors, almost 70% of projects chose to incorporate Stellar in some way and compete for the SDF prize.

In September, SDF worked with DFS Lab to sponsor a bootcamp focused on supporting the growth and development of blockchain-based businesses in Africa. Over the course of a guided weeklong design sprint, nine companies integrated Stellar into a product or service, culminating in a demo day pitch to a group of select investors.

Finally, the Stellar Community Fund, an ongoing open-application grant program that gives the greater Stellar community the opportunity to weigh in on lumen allocations, continued its strong 2021 run this quarter. SCF8 broke the previous application record and awarded eleven projects a total of almost 3.2 million XLM. Winners ranged from a new PHP SDK to a stablecoin issuer to apps focused on financial inclusion in emerging markets. To capitalize on the momentum, SCF9 opened applications immediately afterward (and launched a brand new website!), and submissions are once again rolling in at a record-breaking clip.
Visibility & Engagement

Marketing and Communications

Q3 2021 saw SDF continue to drive both awareness and engagement among its various target markets.

SDF saw strong engagement in digital channels, highlighted by a +17% increase in Twitter engagement rate vs. Q2 and a +14% gain vs. Q2 in 'time spent' on stellar.org. While website traffic was down in Q3, coming off of record levels in Q2, Q3 traffic was +123% vs. Q3 of last year. A steady stream of blog content during the quarter (13 in total) helped drive engagement rates, such as the announcement of Bitso’s planned integration of Stellar USDC. The SDF Marketing team continues to focus on creating content illustrating use cases for Stellar, such as Stellar for Fintech, and case studies featuring Vibrant, RealtyBits, and SCF winner COINQVEST. Digital media spending targeting developers, crypto-enthusiasts and enterprises grew during Q3, driving a +46% gain vs. Q2 in form submissions.

On the events front, registration for SDF's annual Meridian conference is now live for November 17th-18th, 2021. This year’s theme is Build Locally, Impact Globally and speakers and content are being rolled out. Meridian 2021 will be virtual, allowing participants from around the globe to participate. Additionally, SDF spokespeople appeared at a range of events:

- Director of Engineering Tomer Weller appeared at ReImagine 2021.
- Vice President of Ecosystem Justin Rice spoke on a panel addressing “Closing the Gap on Financial Inclusion” as a part of GBBC Blockchain Central UNGA.
- Denelle Dixon participated both at the Congressional Hispanic Caucus Institute’s Leadership Conference, “Cryptocurrency and the Global Market” panel and the Embassy of Haiti’s Blockchain Symposium.
- COO Jason Chlipala spoke on a panel addressing “Can CBDCs truly enable financial inclusion?” as a part of the Singapore Fintech Festival.
- International Policy Lead Gabriel Bizama spoke on a panel during a fintech webinar in Argentina called “El futuro del dinero en Latinoamérica” (in Spanish).
COO Jason Chlipala participated in the High-Level Multi-Stakeholder Dialogue on CBDCs held by the Alliance for Financial Inclusion.

On the newsfront, SDF continued with a series of announcements during Q3:

- Liquid, a leading cryptocurrency exchange in Asia, announced the availability of USDC to its users, while Bitso, with its LATAM focus, will offer USDC as well.
- SDF, along with Bitt, is a finalist for the Monetary Authority of Singapore (MAS) Global CBDC Challenge.
- Stablecorp and Versabank are issuing a Canadian stablecoin (VCAD) on Stellar.
- Vottun, a startup based in Spain, is integrating their intra-company payment platform onto Stellar as part of the Spanish Regulatory Sandbox.

SDF also contributed to the dialogue regarding blockchain and crypto-currency policy in the United States:

- Denelle Dixon appeared on Bloomberg Radio regarding the crypto-currency implications of potential infrastructure legislation in the United States.
- Denelle also shared comments on U.S. Federal Reserve Chairman Powell’s remarks on CBDCs.
- Seth Hertlein was interviewed by PYMNTS on the US regulatory outlook for blockchain.

Policy

The brisk pace of blockchain policy developments out of Washington, DC that started in Q2 accelerated throughout Q3. Congress maintained an active hearing schedule on blockchain topics, and the surprise expansion of the definition of “broker” in the tax code to include blockchain participants sparked a heated debate over a landmark infrastructure bill that ground the Senate to a halt for several weeks in August. The SDF policy team contributed to the wider blockchain industry effort on the infrastructure bill and was active throughout the quarter, communicating with dozens of Congressional offices, the US Treasury Department, US State Department, US Justice Department, and financial regulatory agencies. Following the vote on the infrastructure bill in the Senate, Denelle penned an op-ed in CoinTelegraph contending that the controversy missed the larger point: blockchain is infrastructure.
On the international policy front, Q3 saw a tremendous increase in activity as Gabriel Bizama, SDF’s International Policy Lead, hit the ground running. The SDF policy team engaged with leading international organizations, including the World Bank, International Monetary Fund, Bank of International Settlements, Organization for Economic Cooperation and Development, United Nations, and regional development banks. Additionally, the SDF policy team spoke with a host of central banks and national finance ministries across the EU, Latin America, and Asia/Pacific regions.

SDF leadership also welcomed Ukrainian President Volodymyr Zelenskyy to Silicon Valley and discussed SDF's ongoing support for Ukraine's digital economy. At the same time, an SDF delegation travelled to Ukraine to meet with the Ministry of Digital Transformation and other stakeholders. While in-country, Roberto Durscki, SDF Senior Director of Business Development, spoke at the UTomorrow Summit, Eastern Europe's premier technology event. SDF commends Ukraine's forward-looking leadership and commitment to delivering digital transformation by leveraging blockchain.

Membership organizations are an essential element of SDF’s overall policy and engagement strategy, and Q3 proved no exception. Seth Hertlein, SDF Head of Policy & Government Relations, was named a co-chair of the Blockchain Association’s Stablecoin Working Group. Denelle co-authored this report (summary) from the World Economic Forum’s Global Future Council on Cryptocurrencies laying out recommendations for how policymakers can appropriately balance cryptocurrency regulation, and moderated this discussion at the paper’s release. SDF also joined the Digital Currency Global Initiative, a collaboration between Stanford University and the UN International Telecommunications Union.

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, 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. Below is a summary of how lumens were allocated in Q3 of 2021.

Q3 Mandate Status

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

Table 1. Lumen Distribution July 1 - September 30, 2021

<table>
<thead>
<tr>
<th>Mandate Category</th>
<th>Wallet</th>
<th>Amount</th>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Development</td>
<td>Various</td>
<td>481,326,208</td>
<td>SDF Operations, Employee Grants</td>
</tr>
<tr>
<td>Ecosystem Support</td>
<td>Currency Support</td>
<td>4,665,304</td>
<td>nToken, Biccos, Centre, Settle, Liquid, Vottun, JST</td>
</tr>
<tr>
<td></td>
<td>Developer Support</td>
<td>4,561,455</td>
<td>SCF Grants, R&amp;D Grants, Infrastructure Grants</td>
</tr>
<tr>
<td>User Acquisition</td>
<td>Enterprise Fund</td>
<td>116,873,630</td>
<td>Tala Investment</td>
</tr>
<tr>
<td></td>
<td>Marketing Support</td>
<td>94,033</td>
<td>Tempo Marketing Grant</td>
</tr>
<tr>
<td>Use-Case Investment</td>
<td>In-App Distribution</td>
<td>36,000</td>
<td>Vibrant Distribution</td>
</tr>
<tr>
<td></td>
<td>New Products</td>
<td>0</td>
<td>n/a</td>
</tr>
</tbody>
</table>

The table below reflects the ending balances in SDF’s wallets as of October 1, 2021.

Table 2. SDF Account Balances as of October 1, 2021

<table>
<thead>
<tr>
<th>Direct Development</th>
<th>Jan 1 2021 Escrow</th>
<th>Jan 1 2022 Escrow</th>
<th>Jan 1 2023 Escrow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Development</td>
<td>2,046,505,631</td>
<td>0</td>
<td>3,000,000,003</td>
</tr>
</tbody>
</table>

1 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.
### Ecosystem Support

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Development Hot Wallets</td>
<td>183,296,976</td>
</tr>
<tr>
<td>Developer Support</td>
<td>906,158,646</td>
</tr>
<tr>
<td>Currency Support</td>
<td>965,875,011</td>
</tr>
</tbody>
</table>

### Use-Case Investment

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Products</td>
<td>2,000,000,001</td>
</tr>
<tr>
<td>Enterprise Fund</td>
<td>7,762,443,414</td>
</tr>
<tr>
<td>In-App Distribution</td>
<td>3,906,599,179</td>
</tr>
<tr>
<td>In-App Distribution (Hot)</td>
<td>46,328,148</td>
</tr>
<tr>
<td>Marketing Support</td>
<td>1,999,379,586</td>
</tr>
</tbody>
</table>

---

2 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) or on the SDF Mandate Page (https://www.stellar.org/foundation/mandate).