Stellar
Development
Foundation

Q1 2021: Quarterly Report

I Executive Summary

Building and Strengthening Relationships

In its [2021 Roadmap](#), SDF presented its vision for the year and the plan to achieve it, outlining specific and measurable objectives to guide the work around three strategic pillars: 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. Each of these pillars is anchored around growing Stellar in meaningful ways — growth of the number of entities building on Stellar, growth of relevant transaction volumes on Stellar, and growth of the number of people that know about Stellar.

The [official launch of Stellar USDC](#) on the network supports the growth of many sustainable use cases on Stellar, and marks a transformational partnership for Stellar and Circle, pairing the world's fastest growing USD stablecoin with the world's fastest moving payment network. Wallets, exchanges, and other developers can now leverage the speed, security, and low cost of the Stellar network to operate a truly global digital dollar. With broad-ranging applications for this stablecoin on the network, especially given the role the digital dollar can play as a bridge currency, SDF is working with our ecosystem partners to plant the seeds to unlock the full potential of this integration.

SDF also completed three investments from the [Enterprise Fund](#) for a total of $6.5 million in Q1, exceeding the roadmap objective of one investment per quarter. While the profiles of these investments are quite varied — based in different geographies, focused on different use cases — they each hold great potential to fuel growth on Stellar.

SDF

Bringing visibility to these use cases was a central focus for the pillar to be the blockchain people know and trust. In particular, SDF's Marketing team developed a [new case study](#) featuring DSTOQ, the most recent Enterprise Fund recipient. SDF's Legal and Policy teams brought life to this pillar by continuing to engage with regulatory bodies, and by advocating for public-private partnerships to bring clarity to evolving regulatory conditions. For example, in the United States, SDF [submitted comment letters](#) on FinCEN's Notice of Proposed Rulemaking (NPRM) related to self-hosted wallets, in close collaboration with key industry stakeholders.

In its efforts to ensure the robustness of the network, SDF released [Horizon 2.0](#), a major milestone upgrade to Stellar's public API. Horizon 2.0 brings performance and architecture benefits that make running Stellar infrastructure easier than ever, allowing developers to deploy Horizon with fewer resources, under looser constraints, and with far more flexibility.

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

Stellar in the News

[Stellar Development Foundation Invests $5M in Crypto Payments Firm Wyre](#)

[$6 Billion Stablecoin USDC Lands On The Stellar Blockchain](#)

[Decrypt Daily Podcast: Denelle Dixon & Karen Chang on International Women's Day](#)

[Stellar Development Foundation Invests $750K in Nigeria Remittance Platform](#)

[Blockhash Podcast: Interview with Justin Rice](#)

[How Women are Changing the Face of Enterprise Blockchain, Literally](#)

[Goldsilver Bitcoin Podcast: Interview with Jason Chlipala](#)

[CoinDesk TV First Mover: Interview with Denelle Dixon](#)

Virtual Events

[Blockchain Africa Conference Keynote: The Stellar Network](#)

[Stellar Open Protocol Discussion March 2021](#)

[World Government Summit Panel: Is Crypto the New Currency Beyond 2021](#)

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 (Q1 2020 to Q1 2021), the Stellar network saw significant growth. Total accounts (see figure 1) grew by 10% YoY, passing the 5 million mark in early 2021. The number of total payments grew by 160% YoY, with 24.8 million payments made in Q1 2021 compared to 9 million in Q1 2020 (see figure 2). Average daily volume on Stellar's decentralized exchange (DEX) surpassed 10 million XLM per day (see figure 3).

Total operations processed on the network continues to be one of the largest growth areas, hitting more than 270 million in Q1 2021 alone (+99.81% YoY, see figure 4). The continued acceleration in processed operations puts Stellar on track to outpace 1 billion transactions per year.

Figure 1. Total Accounts YoY

March 31, 2020 v. March 31, 2021
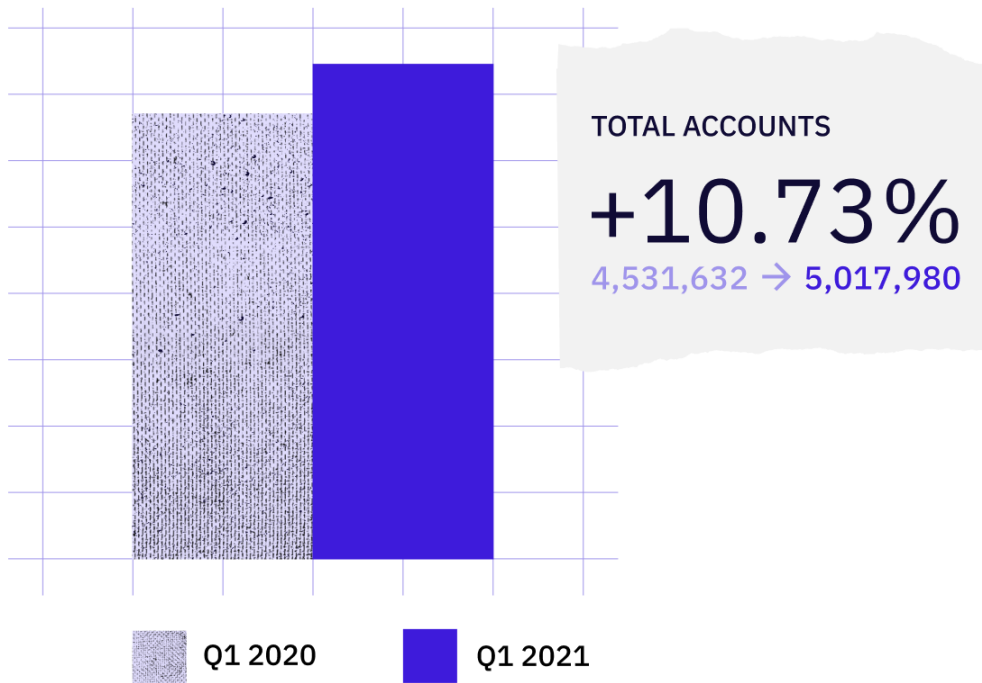
TOTAL ACCOUNTS

+10.73%

4,531,632 → 5,017,980

Q1 2020   Q1 2021

Figure 2. Total Payments YoY

January 1 to March 31, 2020 v. January 1 to March 31, 2021

TOTAL PAYMENTS

+160.49%

9,522,765 → 24,805,501

Q1 2020   Q1 2021

SDF
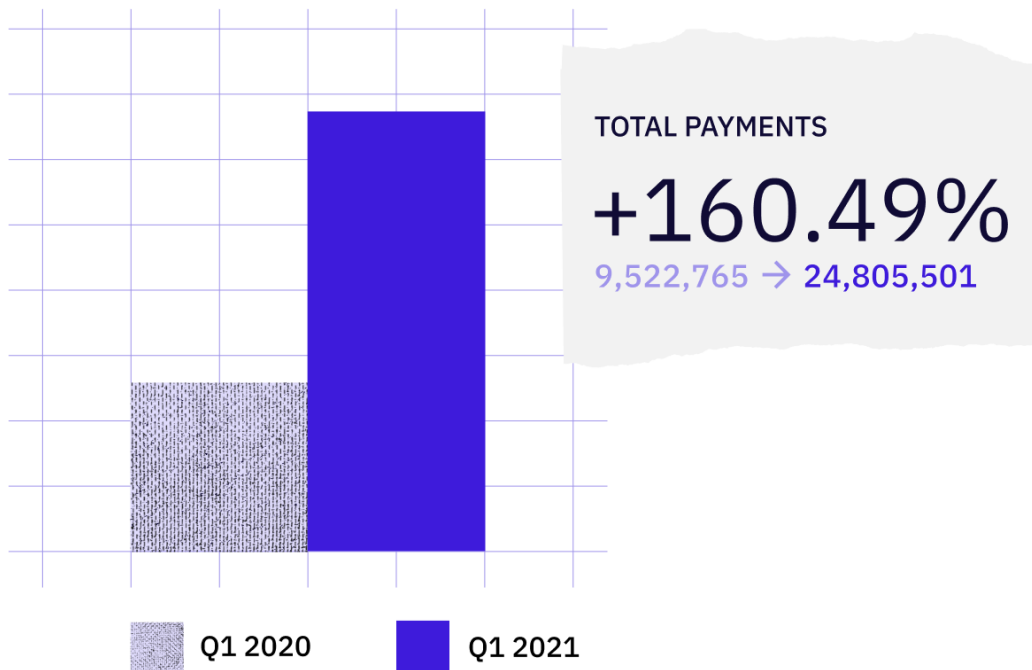
Figure 3. Average Daily DEX Volume YoY

January 1 to March 31 2020 v. January 1 to March 31, 2021

AVERAGE DAILY DEX VOLUME (XLM)

+196.26%

3,490,422 → 10,340,625

Q1 2020   Q1 2021
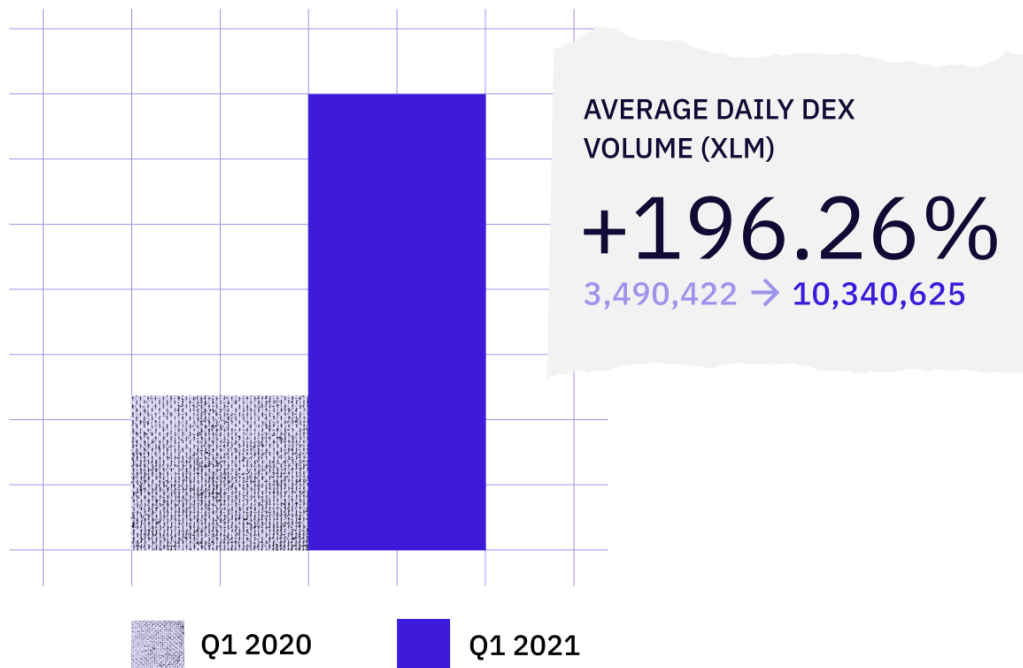
Figure 4. Total Operations Processed YoY

January 1 to March 31 2020 v. January 1 to March 31, 2021

TOTAL OPERATIONS PROCESSED

+99.81%

135,310,971 → 270,364,796

Q1 2020   Q1 2021

SDF
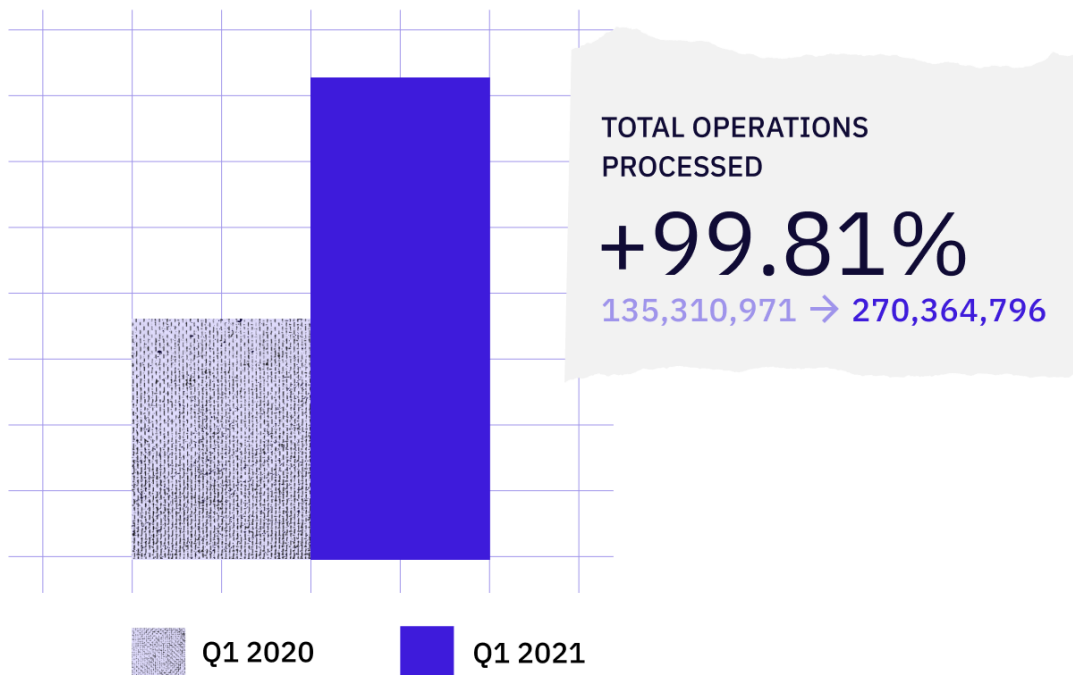
Relevant Assets

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, answering 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 began monitoring this in Q1 of 2020, the total number of these assets stood at 43 with transaction volume for the quarter amounting to $9.6M. As of Q1 2021, the total number of relevant assets has almost doubled YoY (up to 79 assets as of March 31, see figure 5) and the on-network transaction volume of relevant assets grew by almost 2800% YoY (see figure 6).

Figure 5. Relevant Assets YoY

March 31, 2020 v. March 31, 2021

RELEVANT ASSETS

43 → 79

Figure 6. Relevant Asset Transaction Volume YoY

January 1 to March 31 2020 v. January 1 to March 31, 2021

RELEVANT ASSET
TRANSACTION VOLUME

+2,798.47%

$9,658,871 → $279,959,795

Q1 2020   Q1 2021

SDF
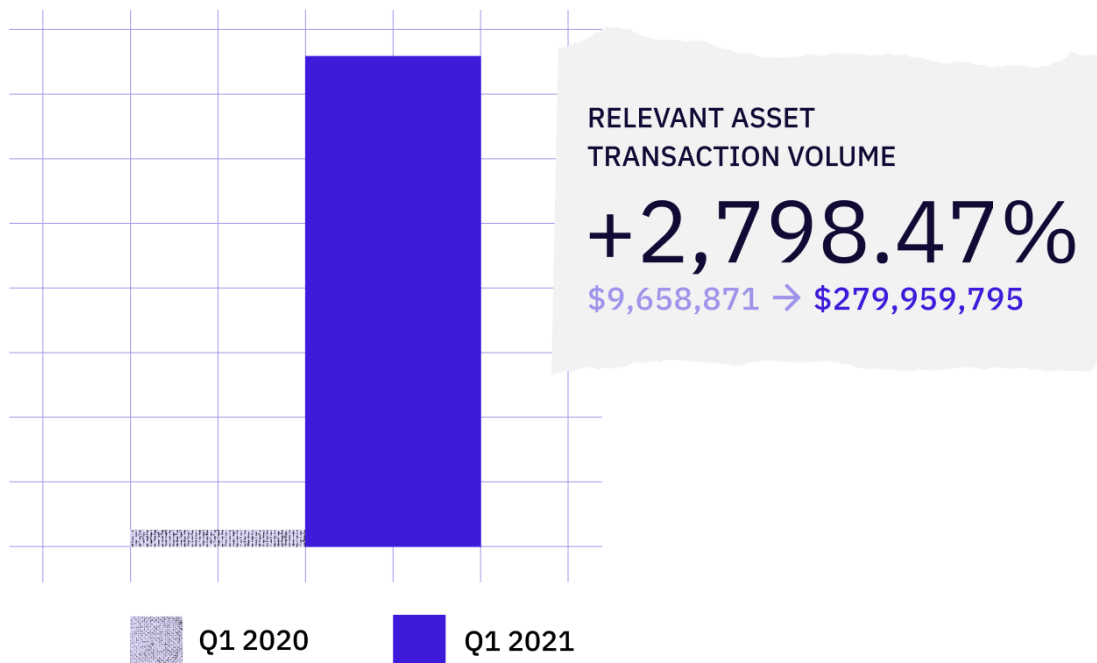
Nodes & Decentralization

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

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 but a slight dip in total nodes. Average ledger close time continues to clock in between 5 to 6 seconds (see figure 9).
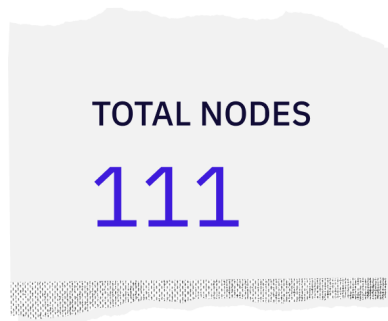
Figure 7. Total Nodes	Figure 8. Validator Nodes	Figure 9. Average Ledger Close Time
TOTAL NODES 111	**TIER 1 VALIDATORS** 23	**AVERAGE LEDGER CLOSE TIME** 5.6837s

III   Network Development and Updates

General Engineering & Platform Updates

SDF's engineering team delivered updated tools and documentation during Q1 in addition to developing infrastructure for future releases, including:

- A new demo wallet, which provides a streamlined interface and user experience for anchor developers who want to test and debug their SEP-6, SEP-24, SEP-31, and SEP10 implementations. Beta code is available on this [development branch](#), and release is planned for early Q2.
- Migration to the [new developer docs](#), including SEO improvements, and deprecation of the old docs.

In addition, SDF's Core team put out three releases in Q1 : protocol upgrades 15.2, 15.3, and 15.4.

Horizon Updates

The highlight of Q1 was the release of Horizon 2.0. This major milestone significantly improved reliability and performance for Horizon operators, enabling large organizations and small developers alike to deploy Horizon with fewer resources, under looser constraints, and with far more flexibility than ever before. Key highlights for developers for the new Horizon 2.0:

- the optimized Captive Stellar Core can process transactions in-memory, meaning disk space requirements have vastly reduced.
- Ingestion is now faster, meaning the Horizon database can be rebuilt quickly.
- There's no separate Stellar Core instance to manage, meaning no more database requirements for Stellar Core.

SDF also released v1.0 of the Stellar ingestion library, which does the heavy lifting of decoding the blockchain, so that developers can write custom software that talks directly to the network.

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

Stellar Ecosystem Proposals are specifications that allow 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.

Q1 2021 saw several major changes and improvements to existing SEPs, as well as the creation of two new CAPs. These proposals both increase transparency to help Stellar be the blockchain people know and trust *and* foster real-world use cases by simplifying cross-border payments and making the issuance of securitized assets on Stellar easier than ever.

- Based on the transparency standard set by Centre, who publish monthly third-party audits of USDC reserves, the Stellar information file standard ([SEP-1](#)) was amended to include an attestation of reserve field. Other issuers of fiat-backed assets have started to take advantage of the change to create a definitive link between their on-chain assets and reserve attestations, and we expect more to follow suit.

- After several rounds of iteration, [SEP-6](#) emerged as the standard API for deposits and withdrawals. The standard also saw several usability improvements, and now supports Claimable Balances.

- [SEP-10](#), the Stellar Authentication standard used as part of most standard transaction flows, added client attribution, and saw improved clarity and a streamlined flow.

- The regulated assets ecosystem standard ([SEP-8](#)) was updated to address new use cases from ecosystem standards, reflecting additional option params for action_required ([stellar-protocol#758](#), [stellar-protocol#854](#), [stellar-protocol#858](#)). See full history of changes [here](#).

- Two major Q1 2021 CAPs focused on improving asset issuers' ability to control access to assets. The first — [CAP-29](#) — modifies asset authorization flags to make them more intuitive. The second — [CAP-35](#) — creates a new class of asset control that provides an issuer with a means to clawback (and reissue if desired) designated assets in order to support regulatory requirements. Both were developed in close collaboration with the ecosystem and the SDF Core and Horizon teams, who worked to prototype and validate an implementation; both add functionality that makes the issuance of regulated assets on Stellar easier than ever. They are slated for the next protocol release.

IV Ecosystem and Partners

Building Strategic Relationships to Drive Mainstream Adoption

Over the last quarter, the industry has seen a number of significant moves towards mainstream adoption of digital assets in the wider economy, including institutional firms supporting investments into digital assets, fintechs and large consumer facing firms enabling end users interacting with such assets, and more countries announcing exploration of Central Bank Digital Currencies (CBDCs) and digital assets.

This shift to the mainstream is likely to come in two forms — privately via large enterprises adopting digital assets for cross border payments and broader access, and publicly via central banks issuing CBDCs. In both cases, SDF believes consulting and technology firms large and small will play a critical role in onboarding these entities, as reflected in the 2021 roadmap goal of building relationships with technology firms. As such, the SDF has developed and begun a concerted effort to coordinate more tightly with these firms in Q1, meeting with large firms like Accenture, as well as some smaller firms like Bloom who specialize in onboarding clients into Stellar. To help lead this effort, SDF onboarded a full-time role within the business development team to run these relationships and ensure the Stellar network is top of mind in the drive for mainstream adoption.

Also on the path to greater adoption, at the start of Q1, SDF announced a partnership with the Ukrainian Ministry of Digital Transformation as an advisor on their path to creating a virtual asset strategy. Together, the Ministry of Digital Transformation and SDF are working to develop a modern virtual asset market infrastructure and enhance Ukraine's status as an innovative digital country in the financial market. In this capacity, SDF was busy during Q1 collaborating closely with the Ministry and its national counterparts as well as large financial institutions in the country to increase awareness of Stellar and map out next steps, including a webinar scheduled for spring 2021.

Businesses on Stellar

Stellar USDC went live on the network on February 2, making the world's leading digital dollar stablecoin available on Stellar decentralized exchange, with six stablecoins, and through five Stellar-integrated wallets. Throughout the quarter, SDF's business development and ecosystem teams worked to help Stellar-based businesses leverage the integration and facilitate broader access to Stellar USDC, namely through enabling compatibility with key custodians like Bitgo, and progressing the launch of Stably as an anchor in the US. Stably, in particular, will allow users to cash in and out of USDC easily, either directly through their account or via third party wallets.

Franklin Templeton has also confirmed that it is piloting a tokenization platform built on Stellar and that as part of their engagement with the network, they are preparing to run nodes.

Enterprise Fund Update

In line with its 2021 roadmap goal of bringing additional participants to the Stellar network through the Stellar Enterprise Fund, SDF invested in three companies in Q1 2021:

- Wyre, $5 million investment to facilitate their integration with the network and enable Wyre's world-class payment APIs to support financial applications to the Stellar ecosystem.
- Cowrie Integrated Systems, a $750,000 investment to help develop growing remittance corridors and promote public-private partnership in pursuit of regulatory clarity.
- DSTOQ, a $750,000 reinvestment building on the initial $715,000 investment made in FY20, as they seek to expand their reach into new markets.

These three investments total $6.5M made in Q1 2021 and bring the Enterprise Fund's total investments since its launch last year to $15.765M. Exploratory work for strategic investments took place throughout the quarter, setting SDF on track to announce an additional two in Q2.

Partner Spotlight: DSTOQ

DSTOQ is a Liechtenstein-based FinTech company that seeks to make investing accessible and affordable for people in emerging markets by providing zero fee access into global stock markets. The company harnesses tokenization and digital asset issuance on Stellar to provide US-grade securities like Tesla, Google, and Apple stock on their consumer-facing app and B2B API integration. In doing so, DSTOQ makes investing affordable and accessible to anyone with a mobile phone.

In Q1, in addition to the renewed Enterprise Fund investment in the company to facilitate growth of its user base and expansion of its product into new geographies, SDF also launched a brand-new case study to showcase how by providing an easy-to-use global solution, DSTOQ has made investing available to demographics and markets new to it.

The case study and corresponding landing page highlights how with an emphasis on both education, with DSTOQ's e-learning courses on the basics of investing, and user experience, powered by Stellar, DSTOQ has attracted those who seek financial freedom and security.

Community Development

Stellar is home to a motivated community of startups, developers, and enthusiasts working together to build the future of finance. This quarter saw continued community engagement and growth, much of which was due to efforts of community-run organizations like Public Node, a 501(c)3 that maintains Stellar infrastructure and releases a weekly wrap-up podcast, and Stellar Global, an ever-growing Discord server that is home to general, regional, and developer-focused discussions.

To foster the community, SDF has several ongoing initiatives aimed at supporting new projects, educating developers, and encouraging any and all to participate in the discussion. Some of the highlights from Q1 2021:

- The Stellar Community Fund — an open competition that awards lumen grants with input from the greater Stellar community — saw record participation this quarter. 58 projects entered and, after a month of deliberation, the nomination panel narrowed the field to 8 finalists. The goal of this round is to support businesses building long-term projects with real-world impact, and each of the finalists has a proven track record and a well-defined plan to build and scale a product or service on Stellar.
- Development began on an educational support initiative, which will work with colleges, universities, and other blockchain-focused educational institutions to introduce Stellar to the next generation of developers and business leaders. We kicked off the program with two hackathons — Hack the Northeast and the Encode's Hack the System — and launched collaborations with UC Berkeley, the University of Arkansas, and several other soon-to-be-announced institutions.
- Stellar Quest 2, the second series in the gamified intro to Stellar that teaches people about the technology through hands-on code challenges, wrapped this quarter. At this point, over 500 developers have completed challenges, and since SQ2 is evergreen, that

number continues to grow everyday. We also completed development of the bigger, better Stellar Quest 3, which will launch early in Q2.

V Visibility & Engagement

Marketing and Communications

On its 2021 Roadmap, SDF placed a strategic focus on marketing Stellar and its top use cases to broaden awareness and drive ecosystem expansion. The Marketing and Communications team achieved some important wins on this front in Q1 2021 and laid the foundation for a productive 2021.

Having committed to launching at least 2 additional case studies in 2021, SDF is halfway to its goal with the launch of the DSTOQ case study. This work highlights not only DSTOQ's business results, but also how their product is impacting the lives of end users. The case study shines light on both how businesses can leverage the Stellar network for growth *and* further SDF's goal of driving financial inclusion. In parallel, the team has another case study project in the initial production phase for launch later this year.

Marketing efforts also drove significant growth on SDF's owned digital channels in Q1, most notably through increased traffic and, importantly, more engagement. For example, Twitter engagement rate for @StellarOrg jumped +33% from the previous quarter. Our continued content marketing campaign efforts are beginning to bear fruit as well, highlighted by a +100% month-on-month jump in March 2021 inbound form fills on stellar.org.

SDF remained in the news during Q1:
- The launch of Stellar USDC was supported by press outreach, highlighted by a feature in Forbes, along with a series of blogs, highlighting what differentiates Stellar USDC and the ecosystem businesses leveraging the integration like FinClusive and Wyre, and social promotion.
- We executed press launches for Enterprise Fund investments in both Wyre and Cowrie Integrated Systems.

- SDF hosted a [virtual event for International Women's Day](#) and garnered additional press coverage on the topic, including in [Decrypt Daily](#) with an interview with Denelle Dixon and Karen Chang, along with being included in additional articles like Cointelegraph's [How Women are Changing the Face of Enterprise Blockchain, Literally](#).
- Both COO, Jason Chipala, and Vice President of Ecosystem, Justin Rice, appeared on podcasts: [Blockhash Podcast](#) and [Goldsilver Bitcoin Podcast](#). SDF CMO, Jordan Edelstein, was also featured on the [Stellar Global podcast](#).

On the events front, SDF participated in 10 virtual conferences or events in Q1 and prepared participation for Q2 conferences , with confirmed speaking roles at upcoming conferences such as the European Blockchain Convention, Paris Fintech Forum, Lendit Fintech, Blockchain Finance Forum: Europe 2021, and Consensus by Coindesk. Planned speaking appearances can always be found on the [events page](#) on stellar.org.

Policy

Q1 brought the start of a new Congress and new Administration in Washington, D.C., which tends to "reset" policy priorities as officials settle into new positions. 2021 proved no different, and the SDF policy team continues to keep a close watch on a number of key posts for blockchain policy that remain unfilled. However, despite the lull in legislative and rulemaking activity, one issue of critical importance to the blockchain community carried over from Q4: the FinCEN NPRM related to Self-Hosted Wallets. SDF expressed concerns with the proposal when the initial comment period closed in January ([comment letter](#) / [blog](#)), and supplemented those comments when the extended comment period closed in March ([comment letter](#) / [blog](#)). SDF General Counsel, Candace Kelly, engaged in industry discussions around the current regulatory environment at two events — a panel on blockchain and crypto regulatory issues at Fintech Retreat 2021 in January and Blockchain by Women's panel on *Ensuring Privacy and Security of Blockchain and Digital Assets* in March.

![SDF logo] SDF

The SDF Policy team also maintained its cadence of regular communication with important stakeholders including FinCEN, the House Financial Services Committee, the Senate Banking Committee, and the U.S. Department of Commerce. SDF continues to advocate for legislation that will provide the regulatory clarity and flexibility blockchain innovators need to grow and thrive, looking forward to the anticipated introduction of bills addressing securities law, stablecoins, money transmission, and more in the new Congress.

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 Q1 of 2021.

Q1 Mandate Status

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

Table 1. Lumen Distribution January 1 - March 31, 2021

Mandate Category	Wallet	Amount	Uses
Direct Development	Various	887,516,149	SDF Operations, Employee Grants, Vendor Payments
Ecosystem Support	Currency Support	3,631,020	nToken, Biccos, Saldo & ClickPesa Quarterly grants; Tempo Grant and ClickPesa Anchor Grant

	Developer Support	1,381,362	Infrastructure Grants, R&D Grants
User Acquisition	Enterprise Fund	24,646,670	Wyre, Cowrie and DSTOQ investments
	Marketing Support	0	n/a
Use-Case Investment	In-App Distribution	1,277,000	StellarQuest, Vibrant Distribution
	New Products	0	n/a

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

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

Direct Development	Direct Development	2,942,528,389
	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]	140,466,289
Ecosystem Support	Developer Support	919,158,646
	Developer Support Hot Wallets	14,549,840
	Currency Support	976,823,448
Use-Case Investment	New Products	2,000,000,001
	Enterprise Fund	7,921,211,724
User Acquisition	In-App Distribution	3,921,999,178
	In-App Distribution (Hot)	31,008,648
	Marketing Support	1,999,511,078

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