



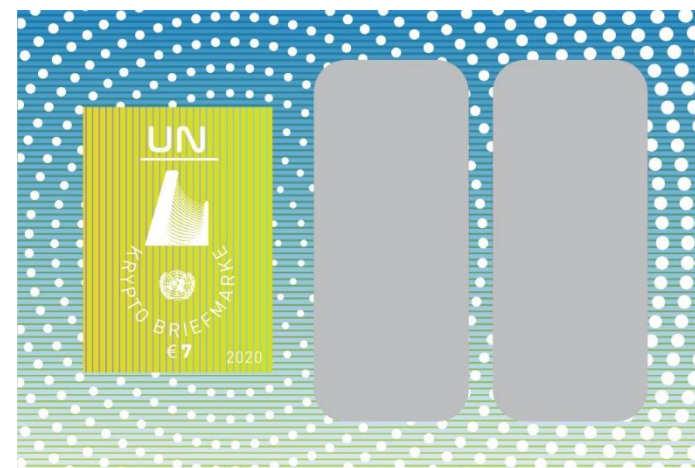
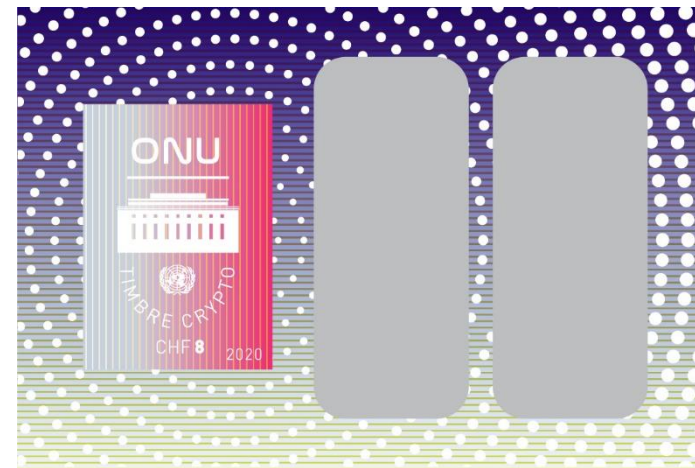
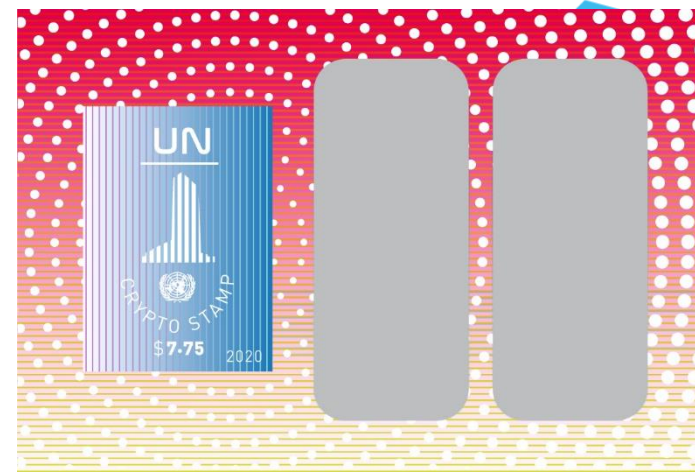
UN CRYPTO STAMPS

<https://crypto.unstamps.org/>

Experience from the United Nations Postal Administration

Thanawat Amnajan, Chief
United Nations Postal Administration

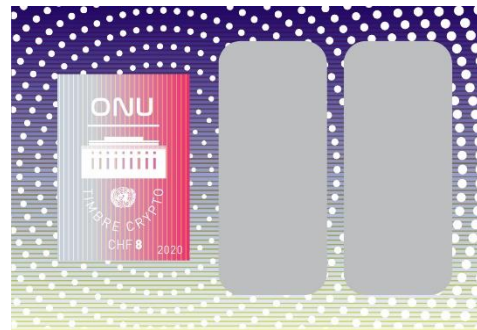
Tuesday, December 14, 2021





Background

- UNPA issued its first UN Crypto Stamps on 24 November 2020.
- The stamps were developed with the help of the United Nations Office of Information and Communications Technology (OICT).
- In December 2018, the UN Secretary-General António Guterres announced his Strategy on New Technologies for the United Nations.
- The goal of the initiative is to define how the United Nations system will support the use of new technologies such as artificial intelligence, biotechnology, blockchain, and robotics; to pioneer the 2030 Sustainable Development Agenda.
- In line with this new strategy, the UNPA launched its first issue of the UN CRYPTO STAMPS.





UN Crypto Stamps



- The UN Crypto Stamp is a new generation of United Nations stamps that are connected to the Ethereum blockchain.
- Each stamp bears a unique secret code hidden behind a scratch-off area. It enables its owner to activate exactly one counterpart of the stamp on the blockchain as digital collectible, otherwise known as Non-fungible tokens or NFT.
- The creation, ownership, exchange and trading of the digital stamps is managed through a smart contract deployed on the Ethereum blockchain.
- The smart contract which manages the UN Crypto Stamp adheres to and was implemented using the open ERC-721 standard.
- Therefore, it can be safely traded on third-party platforms such as Opensea.io and Rariable.com.





Collections

- The UN Crypto Stamp has 3 distinct designs featuring the United Nations offices in New York, Geneva and Vienna.
- The stamps are in the denominations of US\$7.75, CHF 8 and €7.75
- The stamps were design by Sergio Baradat (United Nations) and printed by Royal Joh. Enschedé (The Netherlands)
- The total print quantity is 90,000 stamps. There are 30,000 per each issuing office.
- Each stamp is linked to one Sustainable Development Goal.
- Since there are 3 issuing offices and 17 goals, there are 51 variations of the UN Crypto Stamp in the collection.
- There are equal quantities of all stamp variations, and they are arranged sequentially from Goal 1 to Goal 17.





Challenges

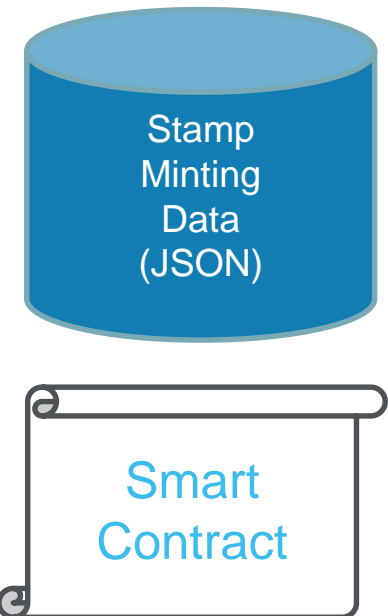
- Discussion with OICT started in August 2019 / Service Level Agreement signed in April 2020
 - Minting was initially estimated at \$3,000 but jumped to \$60,000 by July 2020
 - OICT proposed Merkle Tree / Merkel Mint solution

Crypto Stamp – Merkle Mint – Minting Phase



1. User scans/enters 12 words mnemonic into website
2. Website calculates wallet from 12 words and loads Stamp minting data
3. If valid (stamp minting data could be loaded) website asks user to connect wallet (i.e. Metamask extension)
4. User connects wallet
5. Website activates minting button for the loaded stamp
6. User clicks minting button
7. The wallet/Metamask extension opens and asks to verify/sign the minting transaction with the smart contract on the blockchain
8. The user confirms
9. The transaction is sent to the blockchain
10. If no error occurs the stamp is minted to the wallet address associated with the 12 words on the stamp

(!!! This is not necessarily the same wallet as the one from which the transaction is sent)





New Developments

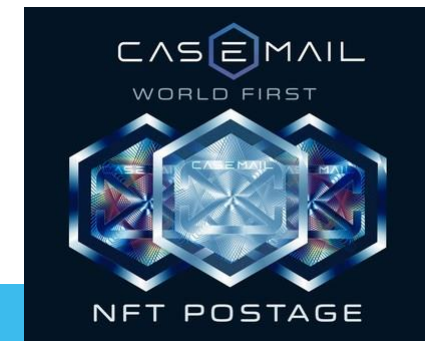
- Ethereum gas fees continue to rise and fluctuate wildly
 - October/November 2021 cost to mint UN Crypto Stamp: US\$90-100
- Crypto stamps move to sidechains
 - Gibraltar Philatelic Bureau worked with Coinsilium & RedFOX
 - Austrian Post moved to xDai
 - Swiss Post issued crypto stamp on Polygon
 - StampDAQ project gains momentum
- USPS differentiated approaches

Licensed 'VeVe' to offer the first-ever USPS digital collectible stamp art

 - Day of the Dead digital arts sold as NFT

Certified 'CaseMail' as First Blockchain Generated ePostage

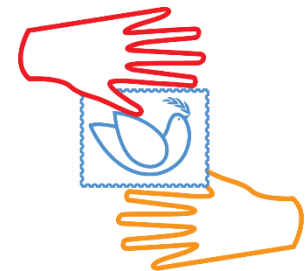
 - all data about the shipment and mailing history is recorded on the blockchain, creating a verifiable chain of custody for digital and physical assets.





UN Crypto Stamps Series 2?

- Which blockchain or sidechain?
- What new features to be offered?
- What game to be developed for the collectors?
- What theme/topic to be featured on the stamps?
- What format and printing technique to be used?
- Does UNPA have sufficient budget?
- How UNPA is going to promote and market these stamps?





Future of UNPA

- UNPA is trying to transform itself and see postage stamps and philately as a tool for ...
 - facilitating human connection and cross border connection
 - providing insights and historical perspectives
 - revealing trails of messages being sent here and there
- UNPA wants to be able to harness the power of new technologies and storytelling so that it could offer stamp users and collectors new and fun ways to ...
 - communicate
 - learn the history and goals behind each stamp
 - hear the story of the artist who designed it and the inspiration behind the design
 - follow and record the trails of messages being exchanged



UN
STAMPS

Thank you!