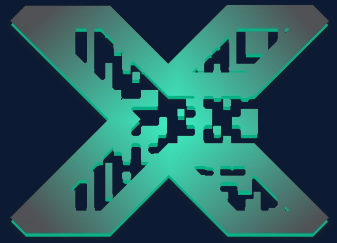


CROSSLINK PROTOCOL

NFT Titles for Durable Goods

Secured by Solana

Why Crosslink?

Disintermediation, via cryptography

Few options exist for securing real-world assets on-chain, and without a middleman. XLP uses crypto, instead.

TAM! $600B/yr

Cost of counterfeit goods in USA, each year—a real problem.

Title

Item ownership is proffered to holder of the NFT “microtitle.”

Authenticity

Via the NFT’s association to the RWA’s bonding key, the NFT also serves as a “certificate of authenticity.”

What is Crosslink (XLP)?

"NFT titles for durable goods, secured by the Solana blockchain"

- Common, public key cryptography provides incontrovertible link between real-world assets (RWA), and associated NFT titles
- New web3 primitive enabling *de*Commerce
- System to discourage counterfeiting & fraud
- Proof of ownership, and authenticity—all-in-one!

Understanding the Protocol

1. Sign

Create bonding key.
Sign a message.
Attach signature (QR code) to item.

2. Mint

Create NFT as usual*, but w/ 2 add'l traits:
1. Bonding key pubkey
2. Message

3. Register

Register the bonding key and NFT mint ID on-chain, using our smart contract and UI.

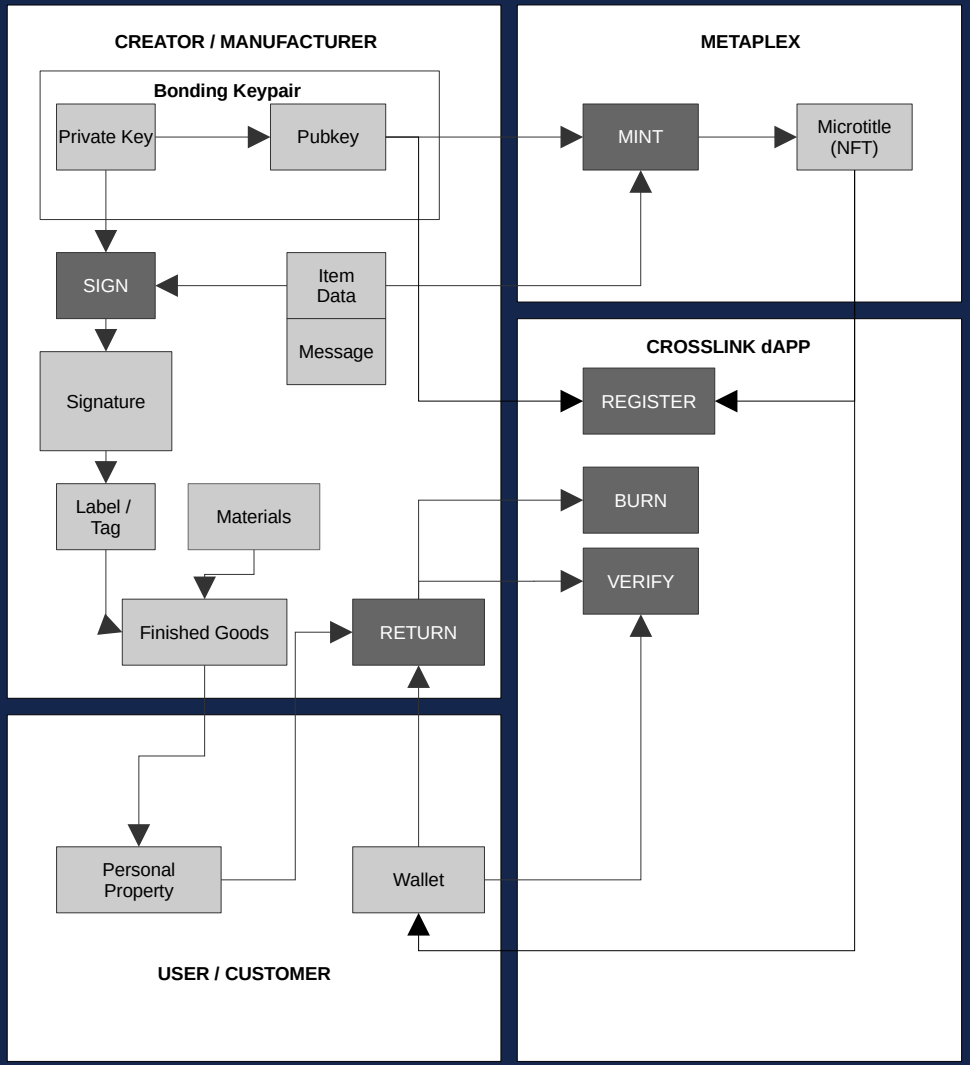
4. Verify

User can check whether the item's signature and registration are valid at any time!

Crosslink Protocol integrates smoothly into your existing NFT creation process w/ 4 easy steps!

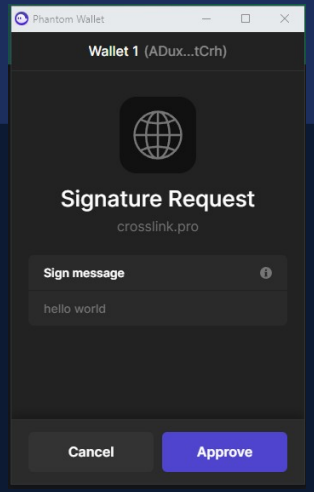
**User may choose any method of minting their NFT, provided they include the requisite traits & values: bkey, message*

System Schematic



Sign

1. Enter a message, such as a serial number, and sign.



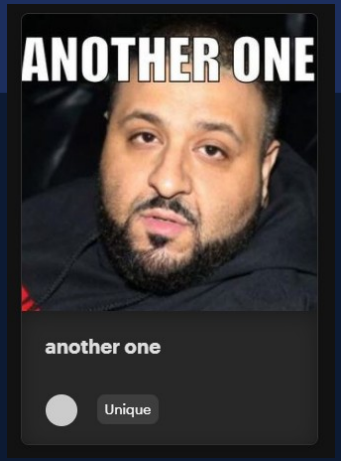
2. Download the Signature. It can be Encoded in a QR Code, plain text, or even an RFID chip!

3. Affix signature to item. Durable labels are an option, but permanent marking or etching (via laser, for example) are best.

4. The signature is proof that the secret key of the bonding keypair is known to whoever created the item. Important: 1 bkey = 1 item DO NOT REUSE!

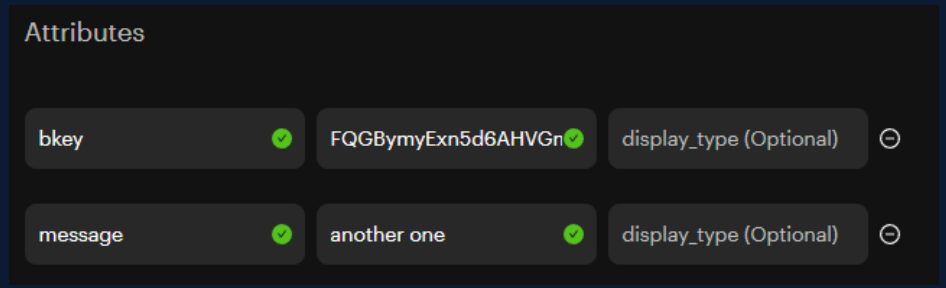
Mint

1. Create NFT as usual*, but w/ 2 add'l traits:
1) Bonding key pubkey
2) Message
Use: Metaplex, FTX.us, Whatever!

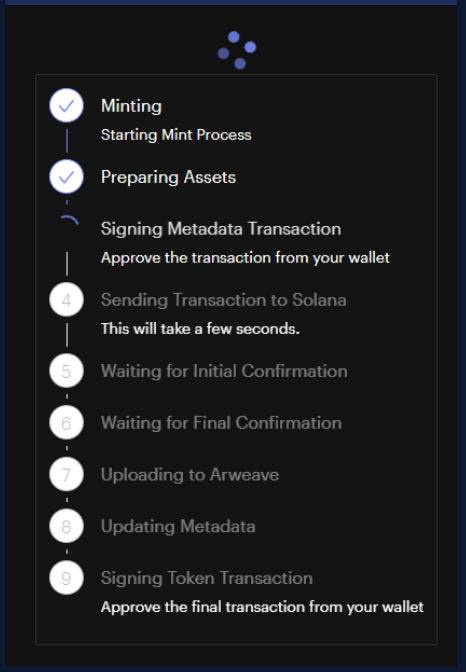


2. Ensure that the bonding key is an included trait:
Trait name: pubkey OR bkey
Value: <base 58 address>

3. Include "message" trait name:
Trait: message
Value: <plain text>



4. Mint!

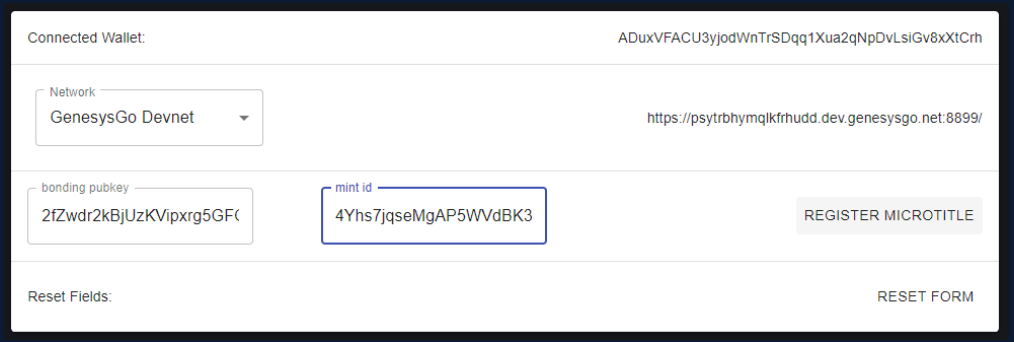


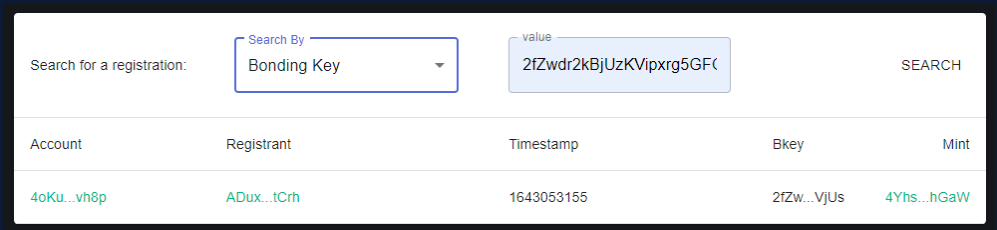
Register

Anatomy of a Microtitle Account (registration) – 112 Bytes Total								
Bytes / Bytes	0	1	2	3	4	5	6	7
1	8B Discriminator <0, 8>							
2	32B Author (Registrant) Pubkey <8, 40>							
3								
4								
5								
6	8B Unix Timestamp <40, 48>							
7	32B Bonding Key Pubkey <48, 80>							
8								
9								
10								
11	32B Mint ID Pubkey <80, 112>							
12								
13								
14								

1. Connect wallet with some SOL In it. Current cost is 0.025 SOL (~$3) to register.

2. Enter two values into the form:
1) base58 bonding key pubkey
2) NFT title's mint ID





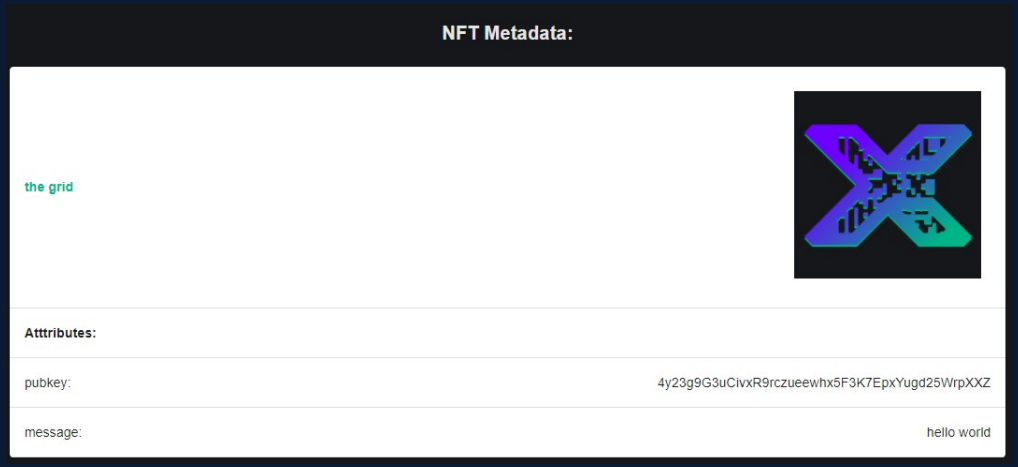
3. Click "Register Microtitle." Approve tx with wallet. You will get a transaction ID for confirmation.

4. Use the search box to verify that the registration was successful, and/or look up public keys at any time.

Verify

1. Connect wallet containing an NFT title. Use the drop-down menu to select the appropriate Mint ID, then click GET METADATA!

2. The NFT image and metadata should populate



3. Use webcam, Copy-paste, or USB QR reader to scan your item's physical signature

4. Click VERIFY, the dApp will verify the signature, and query the microtitle program account to verify that the bkey and mint ID are a match!

Use Case: deCommerce

eBay Seller Goes Solo

Alice is an industrious eBay seller. She's frustrated by the hammerlock that eBay/PayPal has, and is paying 10-15% in fees per sale. She sells refurbished laptops at reliable, but slim margins, and is looking for a way to keep more of her profits.

To go solo, she begins to create NFT microtitles of her physical inventory, that can then be sold online, via a decentralized NFT storefront using Holaplex, or Metaplex.

Technical Implementation

- Alice creates a Metaplex storefront
- She creates NFT microtitles for each computer to sell
- She embeds the QR signature on the inner side of the case, using a permanent, and tamper-evident label
- The NFT contains the description, laptop serial number as the "message" trait, the bonding key "pubkey" trait, and an image
- She sells the NFT to the customer
- With the wallet containing the NFT, customer signs a message that contains shipping details.
- Alice verifies that the signature is valid, then ships the item.
- Handling returns: user returns NFT and laptop, Alice can verify that it is the same item by scanning the QR signature
- Reputation: all sales are on-chain to see

Target Audience by Adoption Stage

Beachhead

1/1 Artists

1/1 artists who want to differentiate, and make NFTs of their physical works.

Early Adopters

Manufacturers

Warranty depts, ambitious marketing depts, + other closed-loop systems.

Pragmatists

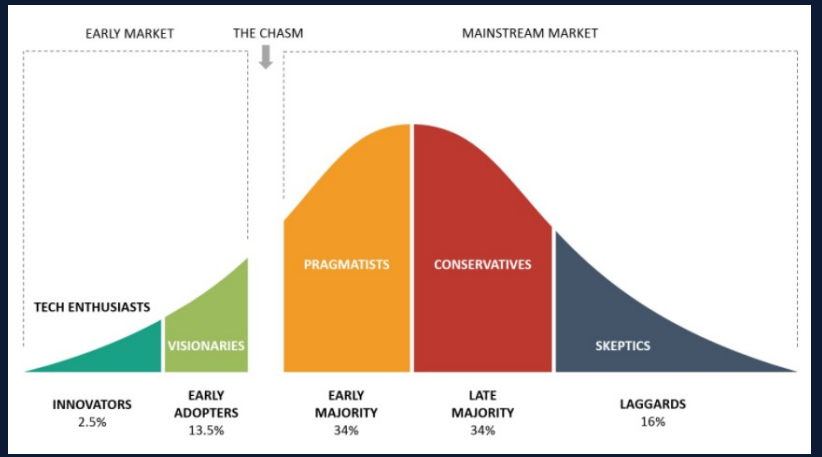
The World

NFTs are commonplace, and the world catching on to industrial apps, and “real” utility for NFTs.

Innovators

Collections, vendors

Artists, sellers, & tinkerers applying XLP tools to their own projects.



Future Developments

Q1 2022

Devnet deploy – DONE
Analyze w/ Soteria – DONE
Mainnet-beta launch

Q2 2022

Command line tools for bulk microtitle creation.

Q4 2022

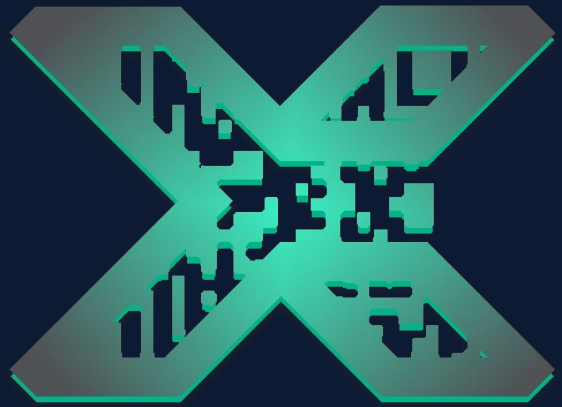
Onboard users…
Stretch Goal: 100,000 registrations

Business Model

First and foremost: Open Source
Team believes in the utility of XLP, Solana, and permissionless blockchains as a public good. And low opex → stable & sustainable.

Fee model
Cost to secure an item, and create a microtitle is ~$3, enabling security for items in the $100's, not $1k's. Low cost / high volume is the goal.

Premium Services
Large projects, corporate customers, and power users may hire additional support on a contractual basis.

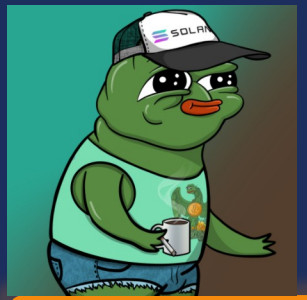


Team

CEO

CTO

CMO



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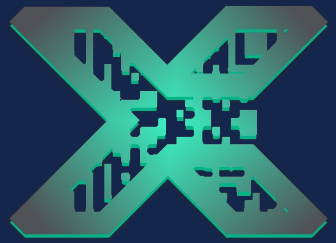

Thank you

https://crosslink.pro/