# Distributed Systems & Blockchain
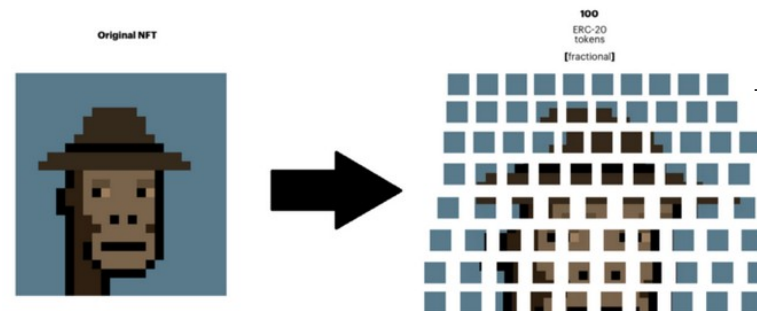
**In the news**

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05.11.2022

# Distributed Systems & Blockchain in the News

- 01.11.2022: One million connections [link]

  - Horizontal scalinging, but: common problem with databases: connection limits → connection pooling

  - Scale up to maintain a total of one million open connections in under two minutes

    – 1000 AWS Lambdas open 1000 connections

- 04.11.2022: Billions being spent in metaverse land grab [link]

  - $1.93b spent on virtual land in the past 12 months

  - 22m spent in Voxels

  - Luxury fashion brand Philipp Plein: $1.5m

- " The crypto metaverses are generally sparsely populated and only really used when events are held, and even then only thousands, and not millions, of people attend."

- 03.10.2022: It's Time to Replace TCP in the Datacenter [link]

  - "Everything about TCP is wrong"

    – Stream orientation → datacenters exchange messages

    – Connection orientation →  2000 bytes of state for each TCP socket

    – Bandwidth sharing → fair scheduling vs.  SRPT (Shortest Remaining Processing Time)

    – Sender-driven congestion control → queues overflow and packets are dropped, leading to timeout

    – In-order packet delivery → assumes that out-of-order arrivals indicate packet drop

  - 01.11.2022:  Comparing TCP and QUIC  [link]

    – Some aspects improved over TCP

OST

# Distributed Systems & Blockchain in the News

- 29.10.2022: Wiring my home with Fiber [link]

  - Init7 provides 25Gbit/s → New HW, cables needed, fiber → splicing

    - 25Gibt/s + 10Gbit/s at home!

- 03.11.2022: October Crypto Recovery Comes with More NFT Traders, Hacks and Exploits [link]

  - NFT unique traders count increased by 18% reaching 1.11 million

  - Fractionalized NFTs

    - could be used as collateral

- "October has recorded the highest value of hacked and stolen crypto ~$1.09b"

- 02.11.2022: Divisions in Sam Bankman-Fried's Crypto Empire Blur on His Trading Titan Alameda's Balance Sheet [link]

  - Next implosion?

  - Sam Bankman-Fried: FTX and Alameda Research as separate business

  - $14.6 billion of assets in Alameda, but most FTT token from FTX

    - FTT issued by FTX to get trading fee discounts



Original NFT → 100 ERC-20 tokens [fractional]

https://medium.com/tessera-nft/what-is-fractional-dd4f86e6458a