



OST

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Blockchain (BlCh)

Micro Payments with Layer 2 Solutions – Use case

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Bitcoins at UZH: Evaluation: Mensa Test Run

- Designed and implemented a Bitcoin payment system
- One week test run from 10th to 14th of February 2014
- Pay all consumptions in Mensa with Bitcoins
- Reduce Bitcoin volatility risk by immediate trades on Bitstamp.net
 - After selling Bitcoins at the exchange point - Buy the same amount of Bitcoins
 - Keep the balance of the exchange point constant
 - After the Mensa receives Bitcoins - Sell these Bitcoins
 - Since the Mensa wants to receive CHF at the end, the equivalent amount is assured in this way



Example payment at Mensa Binzmühle

Bitcoins at UZH: Evaluation: Conclusions

- NFC handling caused many problems because users are inexperienced with NFC
- Fees ~0.1 – 0.2 CHF , coffee was 1.50CHF



USD/mBTC Exchange Rate Drop - February 10, 2014

Micro Payments

- In 2014, fees were “ok” to pay coffee, 10-20 cents
 - Today: 10-20 CHF → not a business case anymore
 - Layer 2 payment solutions:
 - Buy instantly coffee with micro payments and the lightning network
 - But, need to create first a payment channel (cannot simply receive bitcoins)
 - Source Routing: source downloads all information to come up with a path in the routing network
 - **Parameters**
 - Good route trade-off: low fees vs. stuck payment if a node goes offline
 - Riskfactor, as indicator of this tradeoff in this route finding