

# Taler Systems S.A.

## Taxable Anonymous Libre Electronic Reserves

Christian Grothoff & Leon Schumacher

Independent One-Click Payments

March 7, 2017

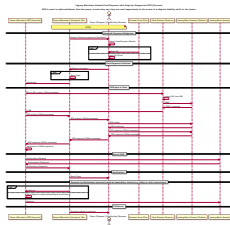
"I think one of the big things that we need to do, is we need to get a way from true-name payments on the Internet. The credit card payment system is one of the worst things that happened for the user, in terms of being able to divorce their access from their identity."

—Edward Snowden, IETF 93 (2015)

# Agenda

1. What is Taler?
2. The Market
3. About Us
4. The Plan
5. Supplemental Materials
6. Financials

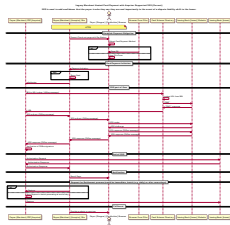
# 1. The Problem



3D Secure



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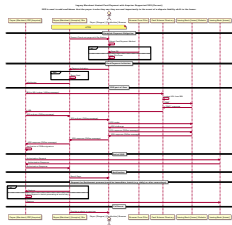


3D Secure



AML, KYC

# 1. The Problem

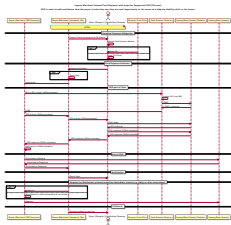


3D Secure



AML, KYC

# 1. The Problem



3D Secure

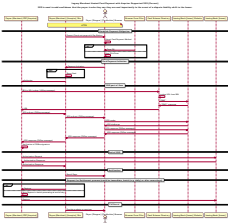


AML, KYC

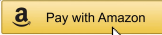


The Future of Payments

# 1. The Problem

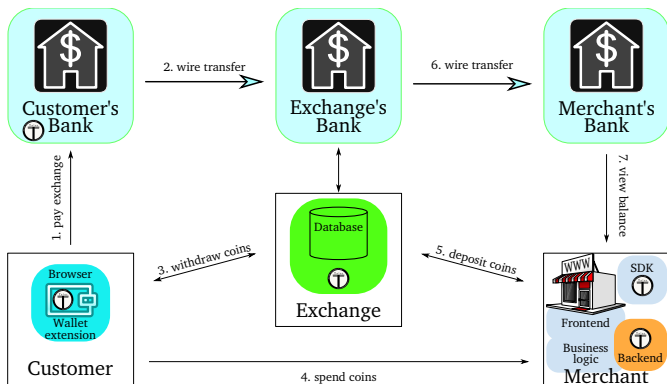


3D Secure



AML, KYC, **GDPR**

## 2. What is Taler?



⇒ Convenient, taxable, privacy-enhancing, & resource friendly!



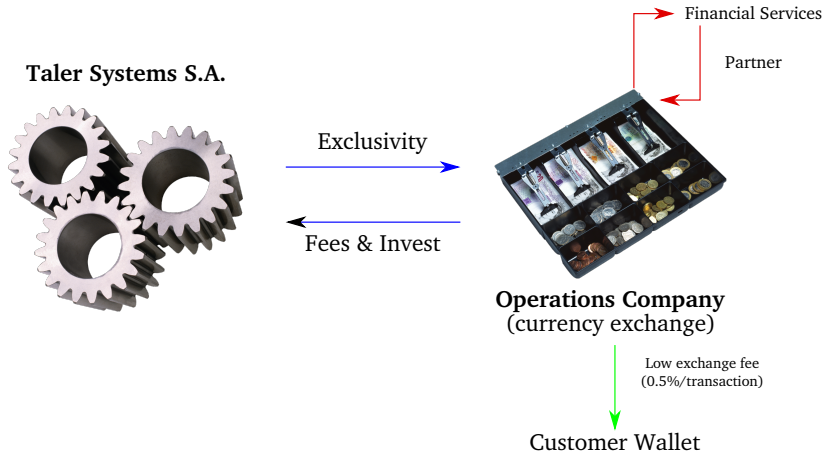
# Advantages of Taler

- All operations provide cryptographically secured, mathematical proofs for courts & auditors
- Customer can remain anonymous
  - retain civil liberties in increasingly cash-less world
  - eliminates costly customer authentication
  - no credit card number theft possible
  - merchants do not need to operate certified equipment (PCI DSS, etc.)
  - unlike Chaum, Taler can give change and refunds, even to anonymous customers
- Merchants are identifiable
  - bad for illegal business
  - no tax evasion

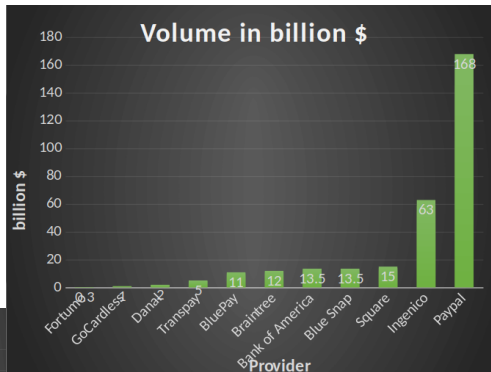
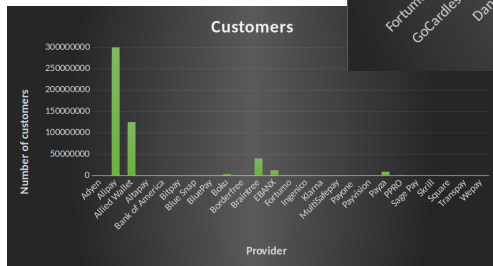
# Advantages of Taler

- Payments in existing currencies, does not introduce any new currency
  - financial stability, no risks from currency fluctuation
  - payment system, not speculative investment
- Scalable, fast protocol implementation
  - low transaction costs (at least in terms of computation at high volume)
- Open standard protocol without patents with free reference implementations
  - low barrier to entry for new merchants
  - governments may adopt as part of digital sovereignty agenda

### 3. Operating Model



## 4. The Market



## 5. Competitor comparison

	Cash	Bitcoin	Zerocoin	Creditcard	GNU Taler
Online	---	++	++	+	+++
Offline	+++	--	--	+	--
Trans. cost	+	----	----	-	++
Speed	+	----	----	o	++
Taxation	-	--	----	+++	+++
Payer-anon	++	o	++	----	+++
Payee-anon	++	o	++	----	----
Security	-	o	o	--	++
Conversion	+++	----	----	+++	+++
Libre	-	+++	+++	---	+++

## 6. Payment solutions - Pricing

<b>Provider</b>	<b>Pricing</b>
Alipay	2,0% - 3,0%
Allied Wallet	1,95% + \$ 0,20
Amazon Payments	2,9% + \$ 0,30
Avangate	4,9% + \$ 2,50
Billpro	2,1% + 3,5% fee
BitGold Inc.	1% fee on every purchase
Bitpay (Bitcoin)	0%
Checkout.com	2,95% - 3,95% + £0,15
Coinify (Bitcoin)	0%
eComCharge	3,5% + 0,35€
GoCardless	1% up to a maximum of £2
Western Union	Variable — From 5% up

## 7. Why now and why us?

### Why now?

- Chaum's original patents<sup>1</sup> from 1996-1999 have expired
- Increased awareness of issue of privacy in payment systems
  - Contemporary payment systems fail on privacy
  - Cash is disappearing
  - Alternatives urgently needed
- Cryptocurrencies threaten control over money supply and tax base of governments

### Why us?

- solved (technical) problem of unlinkability
- designed a modern, open standards based version
- We have (most) of the technical expertise to really build it:
  - 15 years of research in network security and privacy
  - Founder of GNUnet and related projects
- good contacts: free software movement, press, academics

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<sup>1</sup>USPTO 5878140, 5781631, 5712913

## 8. Team

&

## Advisory Board

### **Leon Schumacher**

CEO, co-founder

### **Dr. Christian Grothoff**

CTO, co-founder

### **Dr. Jeff Burdges**

PostDoc

### **Dr. Christina Onete**

PostDoc

### **Dr. Richard Stallman**

Founder of the  
Free Software movement

### **Prof. Mikhail Atallah**

Cryptographer, co-founder  
Arxan Technologies Inc.

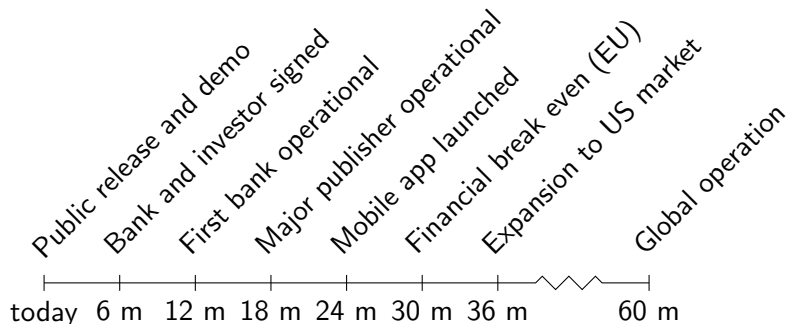
### **Prof. Roberto Di Cosmo**

Director IRILL





## 9. Status quo and plan



500 k Bank operational (integration, documentation, auditing)

500 k Publisher operational (training, integration, marketing)

500 k Mobile app for major platforms (incl. NFC protocol)

500 k Operational overheads until break even

	Year 1	Year 2	Year 3	Year 4	Year 5	Invest
EBIT	-208	-2.666	-2.902	1.689	9.542	5 M

## 10. Contact details

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