



TALER
Taxable Anonymous Libre Electronic Reserves

Project number: Horizon Europe 101135475

D3.2
Report on the
TALER Bookseller

SUCCESSFUL LAUNCH

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PU	Public	X
PP	Restricted to other programme participants (including the Commission services)	
RE	Restricted to a group specified by the consortium (including the Commission services)	
CO	Confidential, only for members of the consortium (including the Commission services)	

HISTORY OF CHANGES		
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0.1	2025-05-09	Preliminary version (unreleased)
0.2	2025-05-28	Preliminary version (for review)
0.3	2025-05-28	Add future work section
0.4	2025-05-29	Integrate CBG and GLS feedback
0.5	2025-05-29	Add screenshots and fix lists
0.6	2025-05-30	Refer to Exodus Privacy
0.7	2025-05-30	Arrange screenshots and link to follow-up topic on TALER ICH
0.8	2025-05-30	Final review by GLS
1.0	2025-05-30	Finalize D3.2 report (no change)

Report on the TALER Bookseller

SUCCESSFUL LAUNCH

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2025-05-30

Revision 1.0

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Abstract

The TALER Bookseller, second deliverable by PS, and third in WP3 was delivered on time despite unforeseen constraints.

The TALER Bookseller provides a fully working demonstration of TALER software, enabling anyone to acquire digital versions of books sold by PS using GNU Taler payment system online.

Keywords: WP3, PS, Bookseller, Taler, implementation, BOOKZ

Chapter 1

D3.2 TALER Bookseller is online!

WP3, *Verticals Towards Commercialization* aims to investigate three vertical markets, in complement to WP2's Finance vertical market:

1. The Independent Book Sector ([#books](#))
2. Inclusion and e-Health ([#inclusion](#))
3. The Free/Libre Open Source Software Supply Chain ([#floss](#))

The TALER Bookseller focuses on the first item and proposes that PS, the publishing partner within the TALER consortium, sell their books online using GNU Taler. This report provides details of the implementation and access to the online shop running the system.

1.1 Means of Verification

1. The website <https://bookseller.taler.net/> is online.
2. Anyone can follow the demonstrator: installing TALER Wallet, obtaining credits from the demo bank, shopping for PS books, obtaining the corresponding digital files.
3. TALER Bookseller announcement to the Fediverse:
<https://ich.taler.net/t/ngi-taler-bookseller-d3-2/419>
4. Press Release is public:
<https://ich.taler.net/t/ngi-taler-bookseller-d3-2-is-online/418>
5. PS TALER page links to the TALER bookseller:
<https://ps.lesoiseaux.io/taler/#taler-d32>
6. PS online store proposes to pay with TALER:
<https://shop.bookseller.taler.net/>

Chapter 2

Making of D3.2

The independent book sector forms an ideal market vertical: all publishers have web sites, they form tight networks with their supply chain (printshops, distributors) and customers (bookshops), and cooperate at regional, national, and international level through federations. Moreover, since the 2020 confinement, most independent publishers and bookshops started selling online independently, considering Amazon, with reason, a threat to their operations and sustainability. As an independent publisher, PS is part of this network of MSMEs who actively resist monopoly and are eager and determined to embrace innovation.

The history of PS stems from free software activism and book making. Even before we incorporated our association, we were active making books: our founders were instrumental in structuring *Cost of Freedom* (2015), in support for late Syrian Creative Commons activist Bassel Khartabil, who died in Bashar Al Assad's prisons; they also ran a booksprint for *software freedom, your way* (2016) which documented the Debian fork and proposed a human and collective approach to free software that informed the core of *petites singularités*' path forward.

From this experience, PS started producing books on a yearly basis since 2019, and started professionalizing this activity since 2021. Coming from free software and the GNU project, it was only natural for PS to embrace GNU Taler, a promising electronic payment system that was the only credible proposal from the free software community to counter dominant projects competing to take control of online payment systems across the board. Besides being the only viable proposal coming from the free software, GNU Taler offers unique characteristics that make it a serious contender against industrial giants in payment systems.

GNU Taler's unique design brings, in our opinion, four invaluable advantages over competition:

1. privacy of the buyer (good to *uphold EU values*);
2. transparency of the seller (good for *thwarting tax evasion and money laundering*);
3. free software (good for *technical sovereignty and security*);
4. and *much cheaper operational costs* than existing solutions (good for long-term competition and keeping transaction costs low).

As an independent publisher in 2025, who needs to sell books online, and at events, GNU Taler provides a cost effective and ethical payment solution, and we're looking forward to see it thriving on the European Single Market. Due to its much lower operational costs, GNU Taler is also perfectly suited to handle micro-payments, opening new opportunities for publishers, like selling ebooks or single articles. This deliverable, for PS, was therefore a first practical step in exploring what we — professionals of the independent book sector — can do with GNU Taler.

The original plan within the consortium was that:

- GLS provides a business account to PS
- PS implements Taler payment on the online bookstore
- PS sells books online using Taler payment system
- Books are sold in Euro

Unfortunately, the intended course of events had to adapt to reality.

2.1 Unforeseen Constraints

The original motivation of the consortium was to offer the GNU Taler payment services for the whole European market with a particular emphasis on making the system technically safe while guarding private user data. However, the current deployments cannot offer PS a bank account and/or access to the Taler system due to limitations in the individual service provider's licensing or product structure. Under these circumstances, PS is not legally authorized to, and cannot become a Taler Merchant within the upcoming payment system in euros by GLS, jeopardizing the original intent, and leaving PS only a few weeks to adjust to a suitable solution for this deliverable.

Moreover, we were not able to find dedicated bookseller software supporting Taler payment APIs, within the technical stack used by PS. Our free software of choice eventually applied to, and was selected for, funding through the NGI TALER Open Calls, but they preferred not to pursue this funding and postponed Taler support to focus on their regular roadmap and more practical matters; although we could have run a temporary server for the purpose of this deliverable, using an existing implementation of Taler, made outside the scope of NGI TALER, we deemed useless to pursue something that we would not be able to maintain on the long term. Besides, there's already such a demonstrator not using euros but a fictional currency, running at <https://demo.taler.net> that does not require any setup from customers since it comes pre-configured with Taler software.

2.2 Resolving the Issues

Since we could not achieve our original intent for reasons independent of our will, we decided to reduce the scope of the D3.2 demonstrator to something manageable. We sought the Project Officer and offered a leaner version of the original bookseller across the Eurozone, to focus on the implementation of the demonstrator for BOOKZ, a fictional currency distinct from KUDOS; BOOKZ are designed, similarly to KUDOS, as a fictional currency for the purpose of buying and selling books.

The demonstrator would be integrated with PS online bookstore, so that potential buyers could choose to acquire electronic versions of our books using the Taler payment system.

The demonstrator implements the following GNU Taler components:

- The *libeufin-bank* software;
- The *taler-exchange* software;
- The *taler-merchant-backend* software;
- The *Taler Point of Sale* app for Android;
- The *Taler Wallet* apps for Android, iOS, or the Web.

The *libeufin-bank* software, running at <https://bank.bookseller.taler.net/>, simulates all bank accounts involved in the demo: the customer's bank account, the account for the *TALER Bookseller Exchange*, and the *TALER Merchant's* bank account. During the demo, each customer must open a bank account in BOOKZ, to simulate their own bank account in EUR. When the bank account is created, it is automatically credited with a sum of BOOKZ that can be wired to the *TALER Bookseller Exchange* in order to withdraw TALER BOOKZ tokens in the customer wallet for privacy-preserving payments at the *TALER Merchant*.

The *taler-exchange* software, running at <https://exchange.bookseller.taler.net>, simulates the financial entity that is authorized to accept fiat currency and deliver bearer tokens (so-called *digital cash*, as it serves the same purpose as paper money: transferring value to the bearer). The Exchange only interacts with the bank(s) and the wallet(s), and remains transparent to the customer outside of the withdrawal operation (turning fiat currency into digital tokens), and to the Merchant during the deposit operation (when the Merchant passes the digital cash to the Exchange in order to be transferred back to fiat currency into their bank account via aggregate wire transfer).

The *taler-merchant-backend* provides a Web interface to manage an inventory with stocks, products and description. It may be connected to a front-end shopping application such as *WooCommerce*. The ongoing NGI TALER Open Calls operated every two months by our partner NLnet aims to grow the number of software integrating Taler payments, that can be found in the Integrations category of TALER ICH, our integration community hub, operated by PS (also known as D3.1).

We tested the sales of electronic version of PS books during the first edition of the *Political Book Fair* in Lille, using the *taler PoS app* for Android. The Point of Sales (PoS) app connects to the Taler Merchant Backend and retrieves the inventory of products, which appears on the screen, divided in categories. For our purpose, PS made a collection-based catalog. Tapping on the collection name, then on the desired product, would add it to the cart. Once the order is ready, the PoS offers two ways of payment:

- flashing a QR code from the Taler Wallet;
- sharing a *taler://pay/* link to share via email or a messaging application, for use with the Web version of the Taler Wallet.

In order to pay with Taler, the customer must do two things: install a Taler Wallet and withdraw digital cash.

Each customer must use a Taler Wallet. The wallet app is available for Android and iOS, as well as major web browsers (Chrome/Chromium, Firefox, Opera). The Exodus Privacy website [rates Taler Wallet](#) with *zero trackers*, in accordance with the privacy-by-design and privacy-by-default goals of GNU Taler; this is unlike most other payment apps on Android. Once the wallet is installed, the customer must withdraw BOOKZ (in this demo, this also requires adding the correct Taler Exchange, since each Exchange is currently tied to a single currency: hit the + button and enter ‘<https://exchange.bookseller.taler.net>’ for the Exchange URL) ; the TALER Bookseller Exchange replies with a specially crafted wire order, that the customer can use from their bank account to wire currency to the Taler Exchange ; then the Exchange issues tokens and credits them to the Taler Wallet.

In order to withdraw digital cash, customers need to wire money from their bank account to the Taler Exchange for their currency. In this demo, the currency is BOOKZ, therefore customers must have a bank account at <https://bank.bookseller.taler.net/>.

This bank account will be used during the withdrawal operation that can be initiated from the Taler Wallet. The TALER Bookseller Exchange gives a wire order to the customer, who can then use the bank account to wire the requested amount in BOOKZ currency to the bank account of the Exchange (named ‘exchange’ in the demo). The wire order contains a cryptographic key that authenticates the operation, ensuring the digital cash go to the right Wallet.

With BOOKZ in their Taler Wallet, customers can buy books from PS!

2.3 D3.2 in Action

The TALER Bookseller demonstrator is fully documented online and integrated in our usual discussion spaces.

Please visit <https://bookseller.taler.net>

The Appendix below presents screenshots of the various components involved in the demonstrator, means of verification, and relevant pictures.

2.4 Future Work

Summary

1. Update demo with new releases
2. Review documentation
3. Increase participation in the documentation
4. Integrate with PS bookshop in EUR

Follow up to this report will be [available on TALER ICH](#).

This demonstrator is based on the recently released version 1.0.0 of Taler software. During our research, PS found several occurrences of bugs in the software and the documentation, leading to timely fixes by the development team. PS intends to update the demo as new versions of the software are released, in order to help testing and reporting issues to developers.

The current documentation appears to suffer from rot: some passages, written years ago, may have been obsoleted by newer versions, as discovered during the implementation of this demo. Therefore, PS intends to review documentation to ensure software can be installed without hiccups by following the documented processes, and clarified where confusion may arise from a lack of understanding of the system. With a composable software of that magnitude, discrepancies between code and documentation are bound to happen.

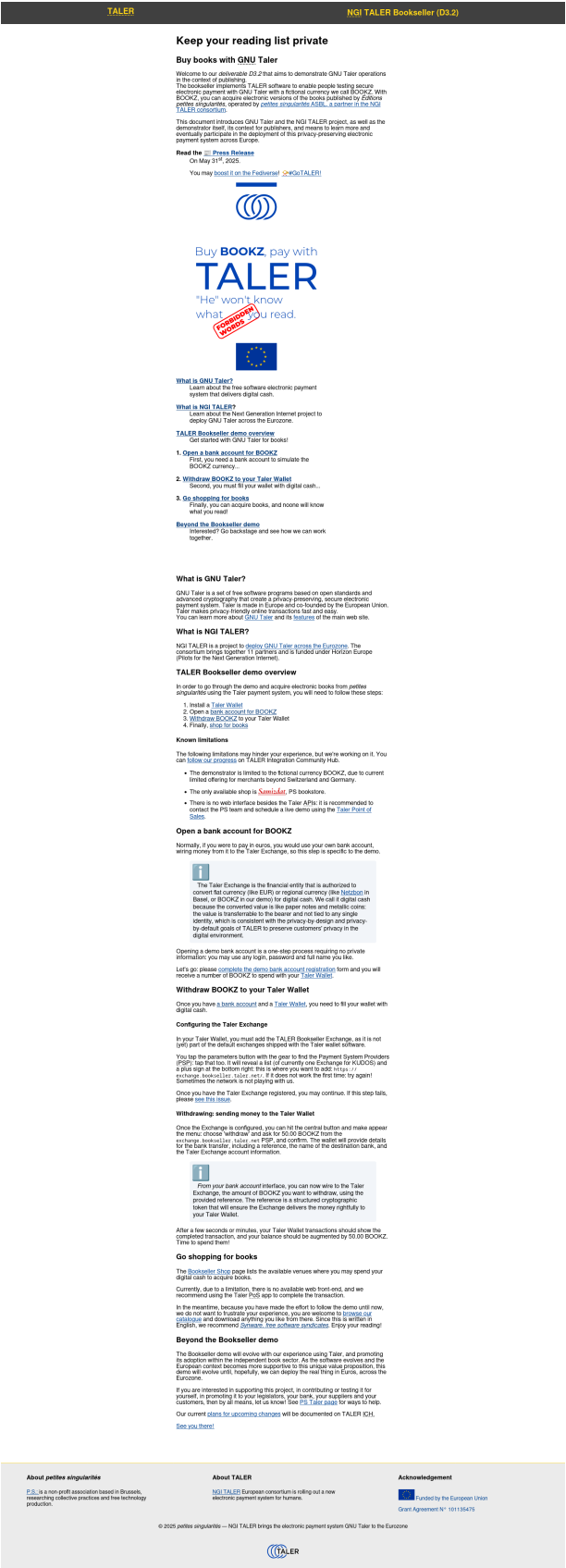
Unfortunately, most software funding focuses on development, and not on maintenance and documentation. Smaller issues in documentation, often hard to impossible to detect, may generate a cascading chain of incurred costs in time and frustration; therefore it's important to ensure highest quality assurance not only for code but also for the documentation. Following the adage “more eyeballs make all bugs shallow”, through open debate on <https://ich.taler.net/>, PS enables anyone in the Taler community, technician or not, to report issues unrelated to code, offering a space for discussion and triage before an eventual escalation to reporting qualified issues to the principal bug tracker of the Taler project at <https://bugs.taler.net>.

We believe that an inclusive community involving all stakeholders is necessary to fulfill the promise of software freedom and digital sovereignty. We're also confident that developer time is precious and therefore must be shielded from unqualified, time-consuming issues: the conversational nature of a forum complements the mailing-list, providing a curated and searchable facility to discover and resolve common problems. This approach allows more people to participate in curating effective documentation that can eventually integrate the official project documentation.

PS envisions a moment when, once the NGI TALER is successfully completed and Taler payment in Euro is available across the Eurozone, we can integrate it fully with the PS bookstore. This deliverable D3.2 is but a first step on that journey.

Chapter 3

Appendix: Screenshots



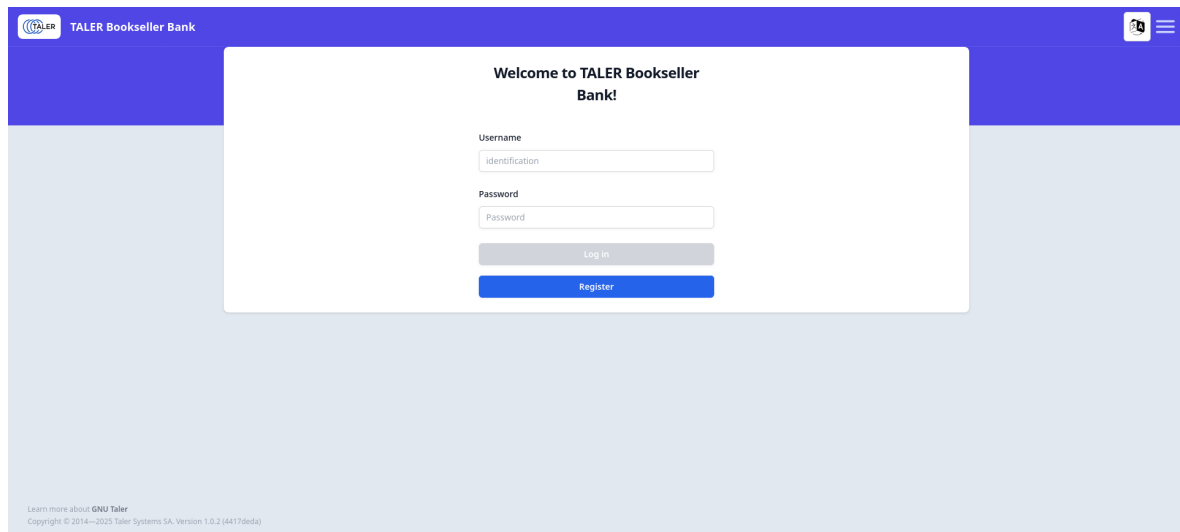


Figure 3.0.2: The TALER Bookseller Demo Bank Home Page

Figure 3.0.3: The Taler Exchange bank account must be marked to 'belong to a Payment Service Provider'

Accounts			Create account
Username	Name	Balance	
admin	Bank administrator	- BOOKZ 13355.79	Change password
exchange	TALER Bookseller Exchange	BOOKZ 1406.63	Change password
ps	PS	BOOKZ 1447.79	Change password
samizdat	SAMIZDAT	BOOKZ 1325.37	Change password
test	TEST	BOOKZ 100	Change password

First page Next

Figure 3.0.4: The TALER Bookseller Demo Bank Accounts (admin and Exchange)


TALER Bookseller Bank




Account registration

Login username *

Password *

Use a strong password: 8 characters minimum, don't use any public information related to you (names, birthday, phone number, etc...) and mix lowercase, uppercase, symbols and numbers

Repeat password *

Full name *

Learn more about GNU Taler

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Figure 3.0.5: Bank account registration form

TALER Bookseller Bank

Account registration

Login username *

jane

Password *

Use a strong password: 8 characters minimum, don't use any public information related to you (names, birthday, phone number, etc...) and mix lowercase, uppercase, symbols and numbers

Repeat password *

Full name *

Jane Doe

Cancel Register

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Figure 3.0.6: Bank account registration form filled for Jane Doe

TALER Bookseller Bank

Welcome, Jane Doe

BOOKZ 1312

Send money

to a Taler wallet
Withdraw digital money into your mobile wallet or browser extension

to another bank account
Make a wire transfer to an account with known bank account number.

Transactions history

Date	Amount	Counterpart	Subject
29/05/2025			
16:02:51	BOOKZ 1312	admin	bonus

First page Next

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Figure 3.0.7: Bank account registered for Jane Doe

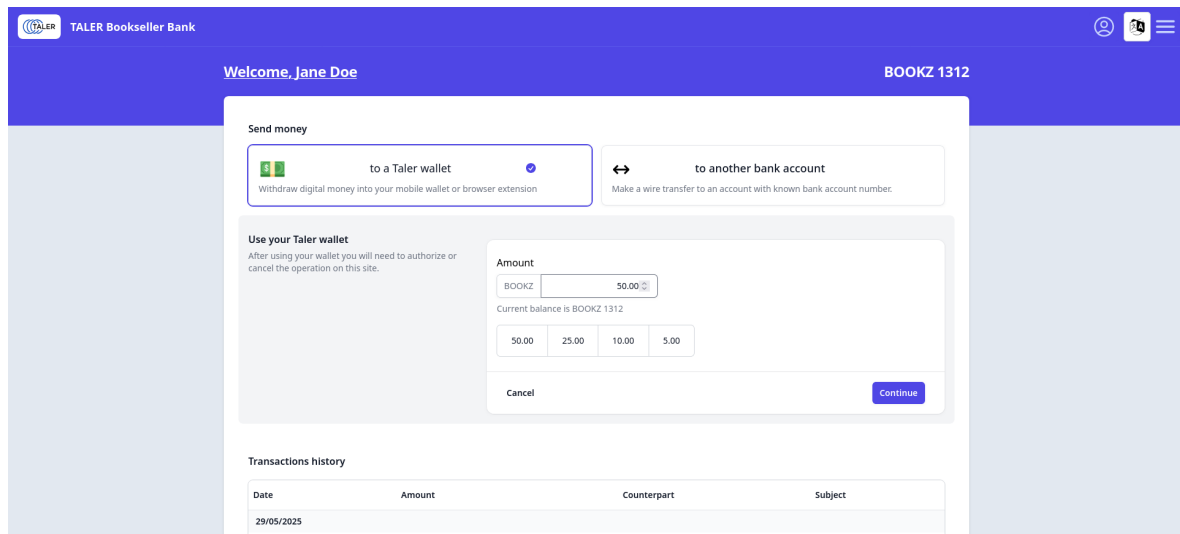


Figure 3.0.8: Bank account Jane Doe sends money to her wallet

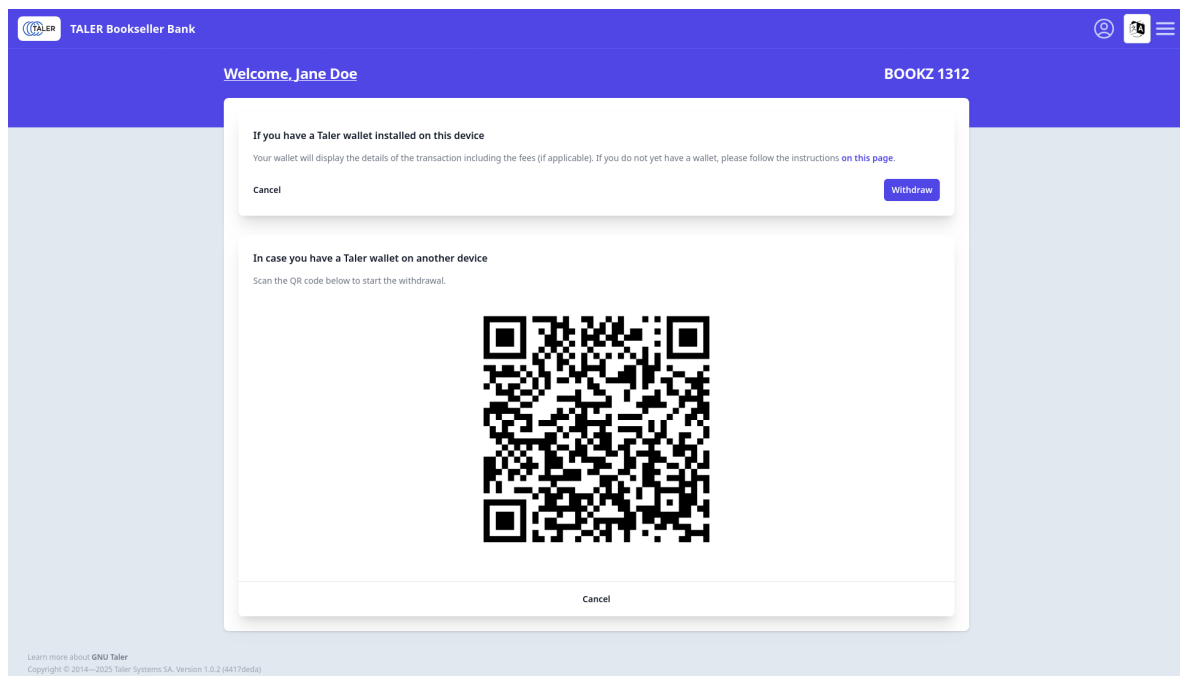


Figure 3.0.9: Bank account Jane Doe sends money to her wallet



✕

Digital cash withdrawal

Service fee description

All fee indicated below are in the same and only currency the exchange works.

Exchange: <https://exchange.bookz.taler.net/>

CLOSE

Auditors
Doesn't have auditors

Currency **BOOKZ**

Coin operations

Every operation in this section may be different by denomination value and is valid for a period of time. The exchange will charge the indicated amount every time a coin is used in such operation.

Deposits

Denomination	Fee	Until
0.01	0.00	25-May-2026
0.02	0.00	25-May-2026
0.04	0.00	25-May-2026
0.08	0.00	25-May-2026
0.16	0.00	25-May-2026
0.32	0.00	25-May-2026
0.64	0.00	25-May-2026
1.28	0.00	25-May-2026
2.56	0.00	25-May-2026
5.12	0.00	25-May-2026
10.24	0.00	25-May-2026
20.48	0.00	25-May-2026
40.96	0.00	25-May-2026

Withdrawals

Denomination	Fee	Until
0.01	0.00	26-May-2026
0.02	0.00	26-May-2026
0.04	0.00	26-May-2026
0.08	0.00	26-May-2026
0.16	0.00	26-May-2026
0.32	0.00	26-May-2026
0.64	0.00	26-May-2026
1.28	0.00	26-May-2026
2.56	0.00	26-May-2026
5.12	0.00	26-May-2026
10.24	0.00	26-May-2026
20.48	0.00	26-May-2026
40.96	0.00	26-May-2026

Refunds

Denomination	Fee	Until
0.01	0.00	25-May-2026
0.02	0.00	25-May-2026
0.04	0.00	25-May-2026
0.08	0.00	25-May-2026
0.16	0.00	25-May-2026
0.32	0.00	25-May-2026
0.64	0.00	25-May-2026
1.28	0.00	25-May-2026
2.56	0.00	25-May-2026
5.12	0.00	25-May-2026
10.24	0.00	25-May-2026
20.48	0.00	25-May-2026
40.96	0.00	25-May-2026

Refresh

Denomination	Fee	Until
0.01	0.00	26-May-2026
0.02	0.00	26-May-2026
0.04	0.00	26-May-2026
0.08	0.00	26-May-2026
0.16	0.00	26-May-2026
0.32	0.00	26-May-2026
0.64	0.00	26-May-2026
1.28	0.00	26-May-2026
2.56	0.00	26-May-2026
5.12	0.00	26-May-2026
10.24	0.00	26-May-2026
20.48	0.00	26-May-2026
40.96	0.00	26-May-2026

Transfer operations

Every operation in this section may be different by transfer type and is valid for a period of time. The exchange will charge the indicated amount every time a transfer is made.

x-taler-bank

Operation	Fee	Until
closing	0.00	01-Jan-2026
wire	0.00	01-Jan-2026

Wallet operations

Every operation in this section may be different by transfer type and is valid for a period of time. The exchange will charge the indicated amount every time a transfer is made.

Feature	Fee	Until
account	0.00	01-Jan-2026
history	0.00	01-Jan-2026
purse	0.00	01-Jan-2026

PRIVACY POLICY

TERMS OF SERVICE

Return to wallet

Figure 3.0.10: Taler Wallet (web extension) showing information for the BOOKZ Exchange

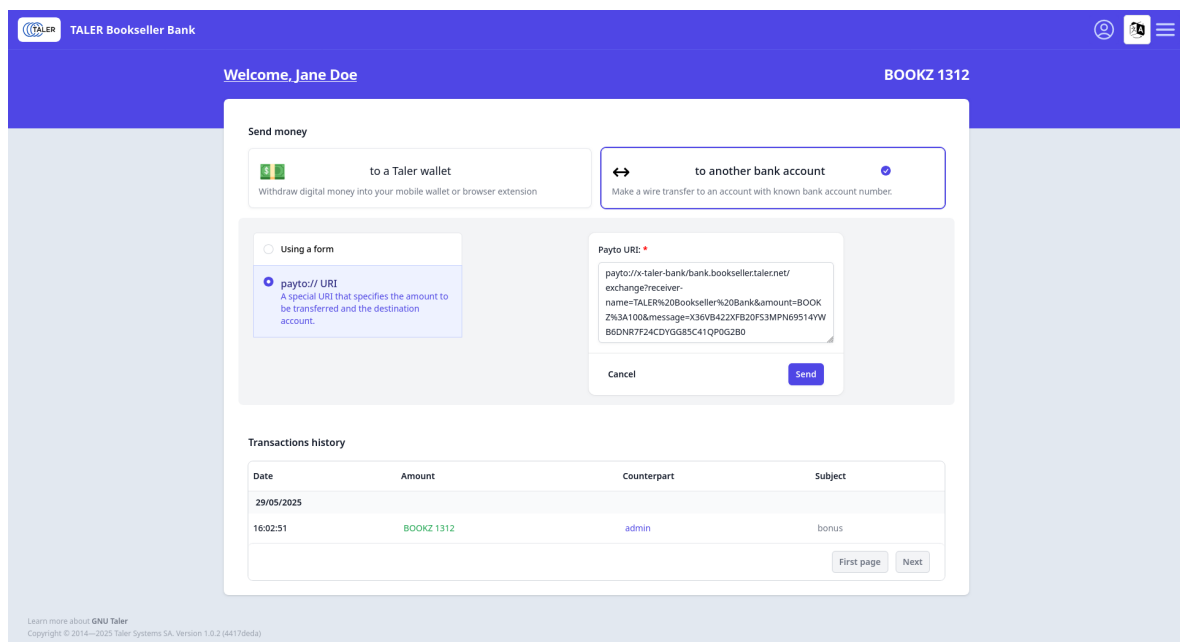


Figure 3.0.11: Bank account Jane Doe sends money to the BOOKZ Exchange using a `taler://pay/` link

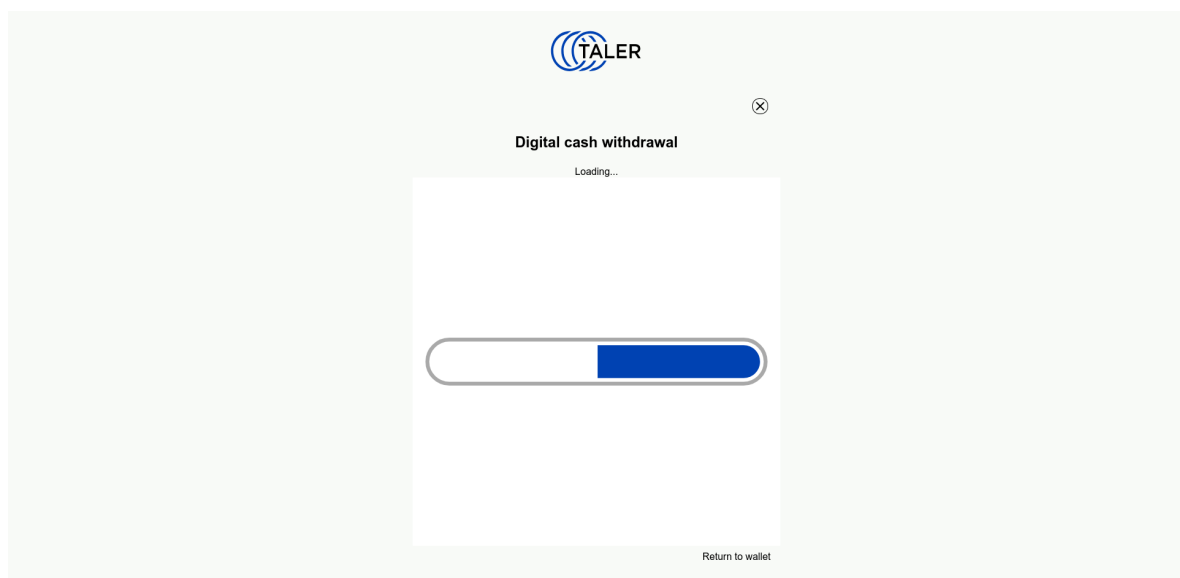


Figure 3.0.12: Taler Wallet loading information from Exchange

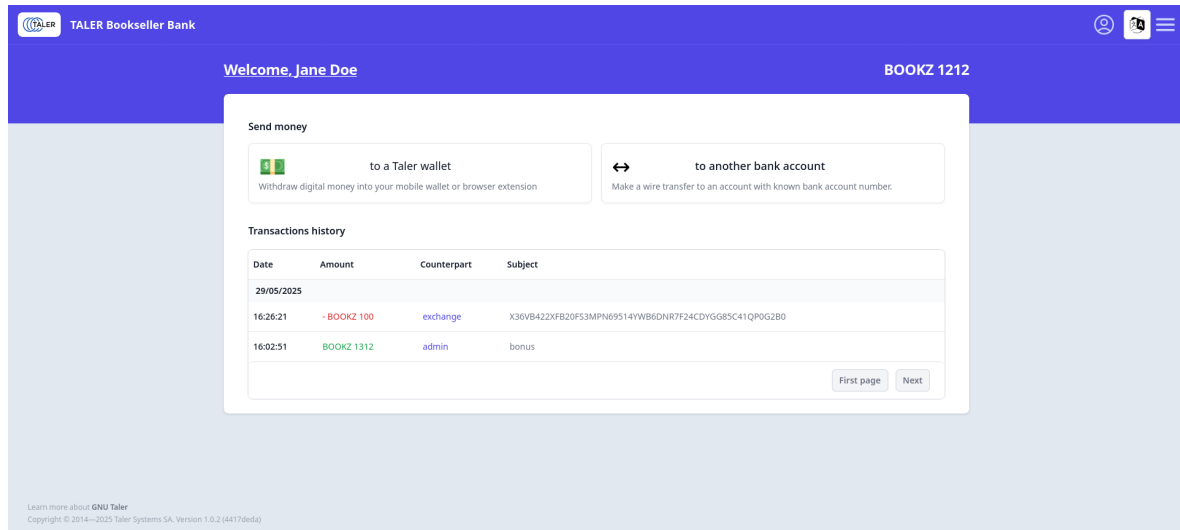


Figure 3.0.13: Bank account Jane Doe: the BOOKZ Exchange received money

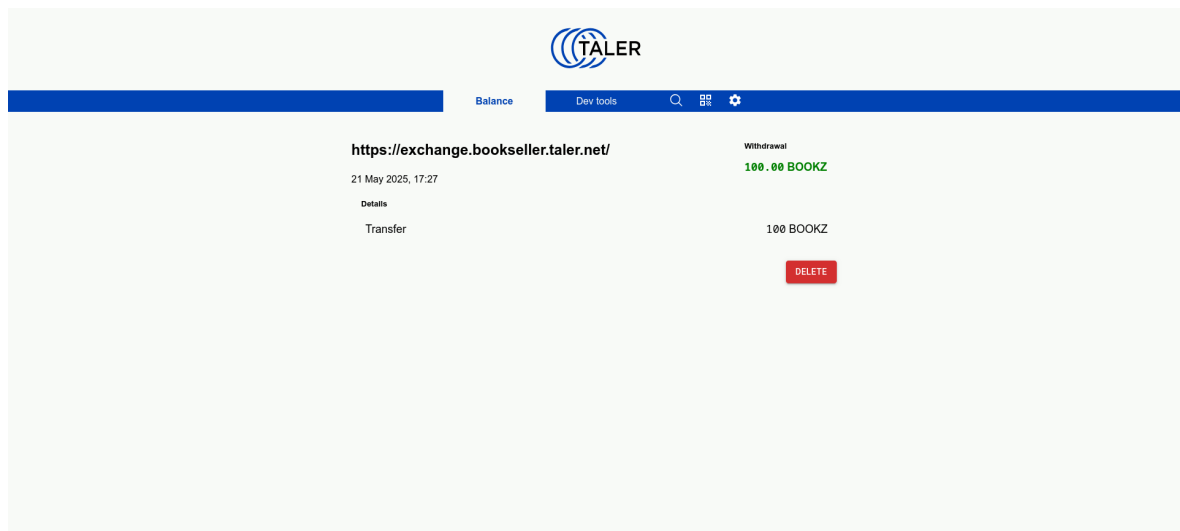


Figure 3.0.14: Taler Wallet's balance was updated with the right amount

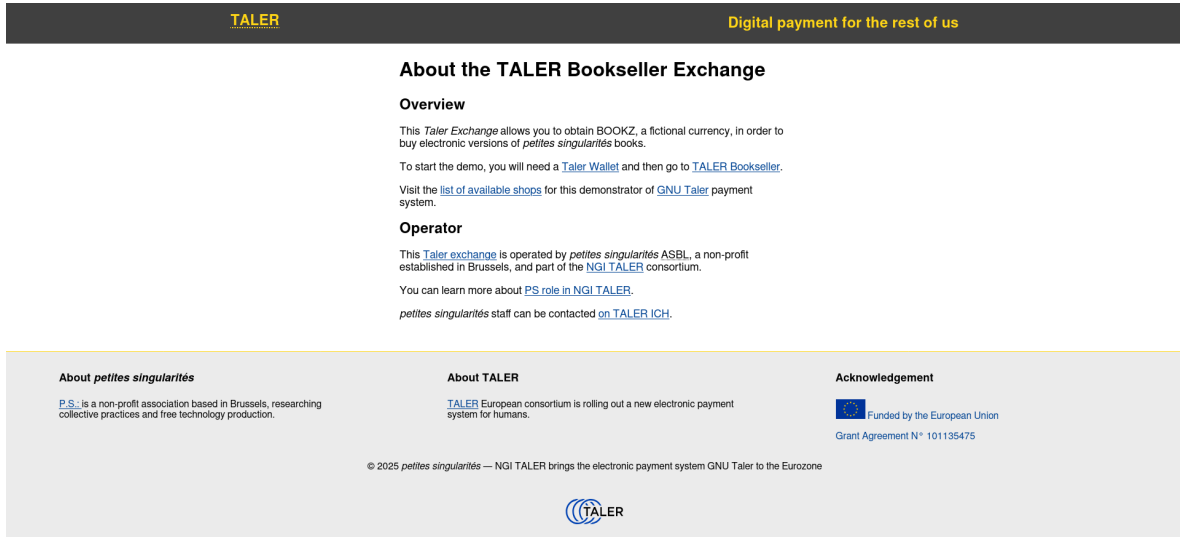


Figure 3.0.15: Taler Exchange home page shows Exchange Operator information

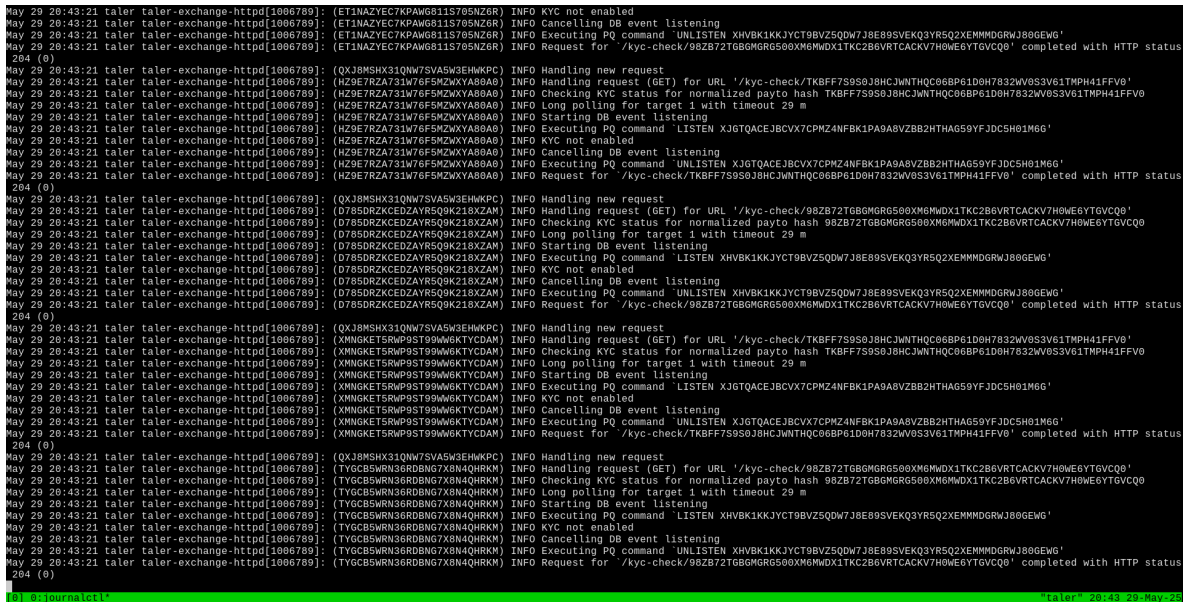


Figure 3.0.16: Taler Exchange is running (viewing KYC logs...)

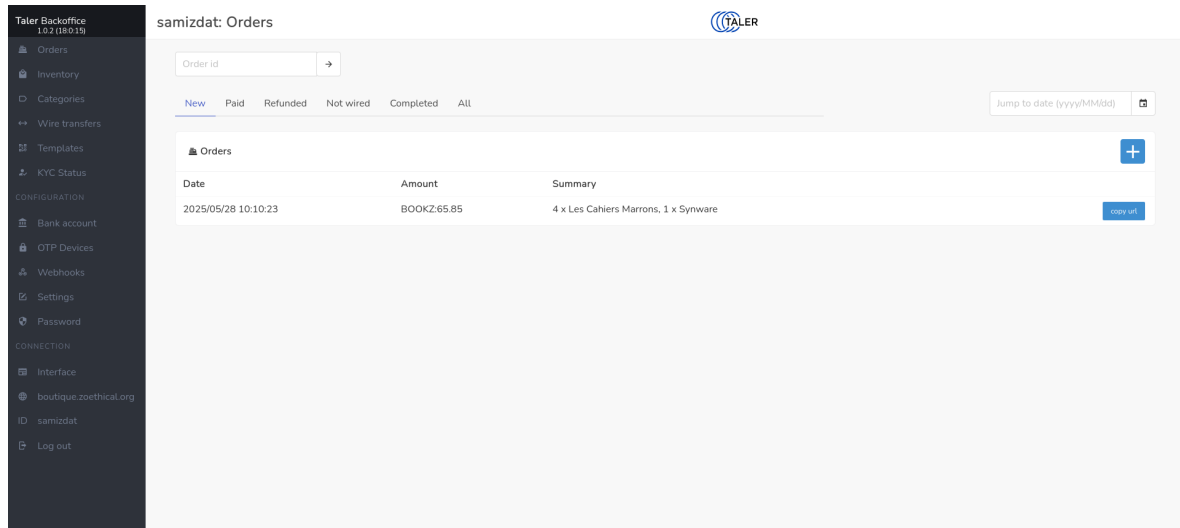


Figure 3.0.17: Taler Merchant Backend home page

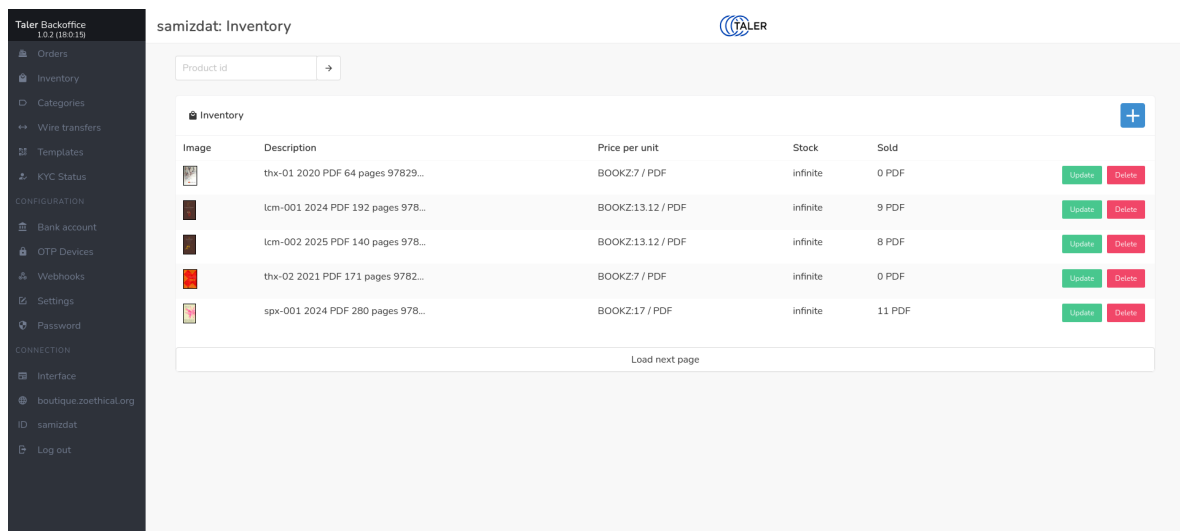


Figure 3.0.18: Taler Merchant Backend inventory

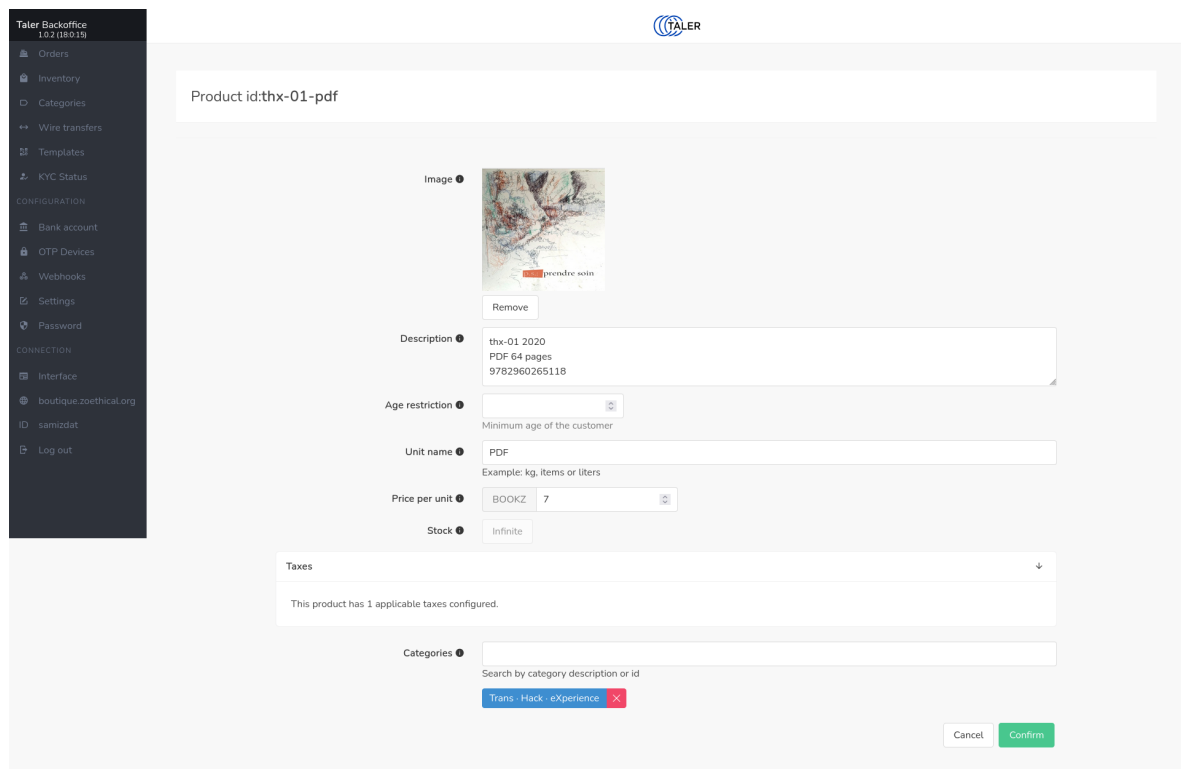


Figure 3.0.19: Taler Merchant Backend product view



Figure 3.0.20: Testing Taler payment live in Lille

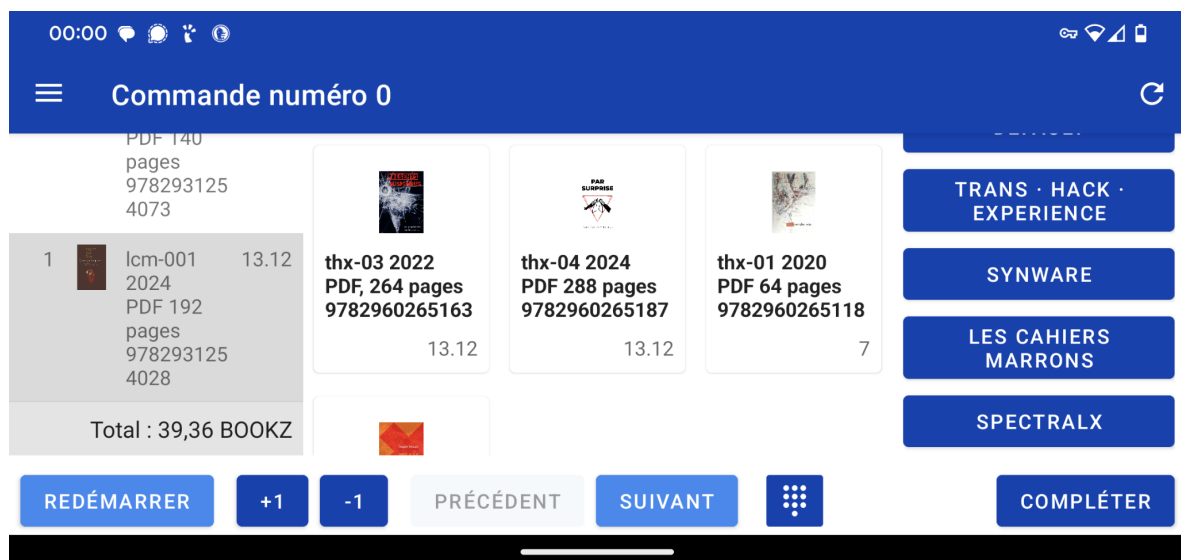


Figure 3.0.21: Point of Sale with BOOKZ inventory



Figure 3.0.22: Thank you for buying with GNU Taler!

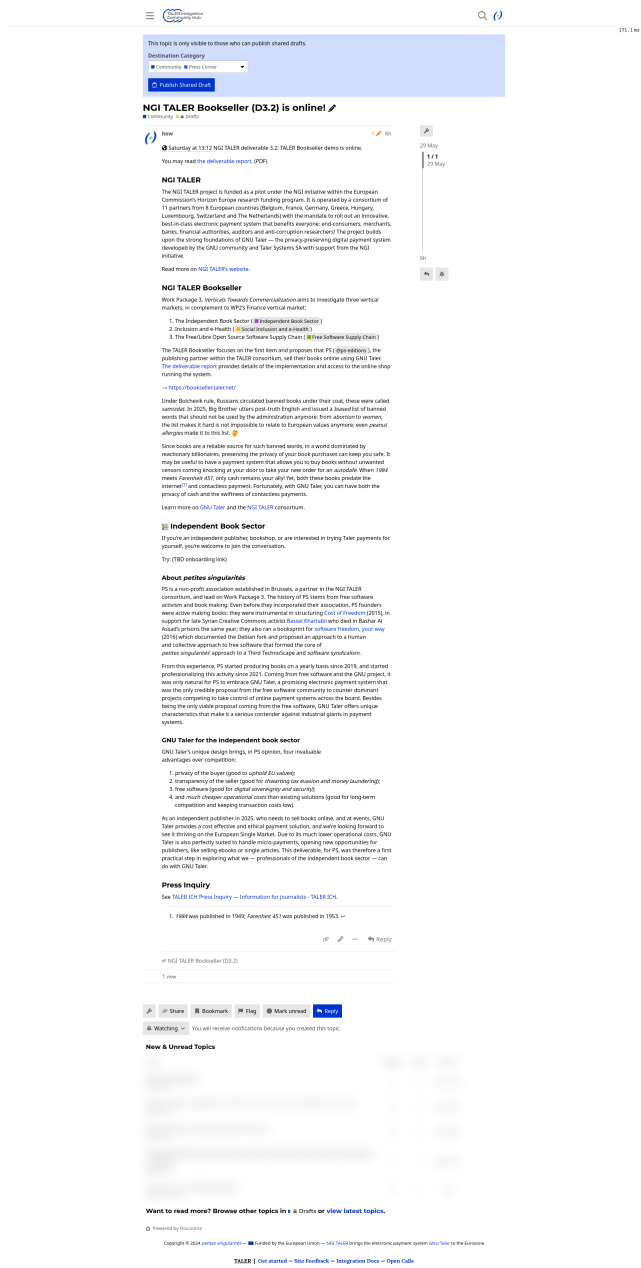


Figure 3.0.23: Press Release for D3.2

TALER Integration
Community Hub

292 · 4 #5

This topic is only visible to those who can publish shared drafts.

Destination Category
Community Go TALER!

Publish Shared Draft

NGI TALER Bookseller (D3.2)

Community Drafts

system Happy robot

#GoTALER! @TALER@s10y.eu Bookseller demo is out.

Buy #BOOKZ, pay with @Taler@fosstodon.org... "He" won't know what forbidden words you read.

(GNU Taler is a free software electronic payment system that keeps your purchases private.)

bookseller.taler.net

TALER Bookseller Demo

Read the #PressRelease: NGI TALER Bookseller (D3.2) is online!



Buy BOOKZ, pay with
TALER

"He" won't know
what you read.





29 May

1 / 1

29 May

4h ago

1 view

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Figure 3.0.24: Fediverse announcement for D3.2