



Omnia

Unlocking Bitcoin L1 DeFi: Building A Lending DApp with REE

04-2025 julian

Workshop Objectives

For Developers:

- Estimate development time and resource requirements for building REE DApps.
- Understand REE example code and documentation.

For Non-Developers:

- Grasp the user experience of a REE DApp.
- Understand the underlying mechanics of how REE operates.

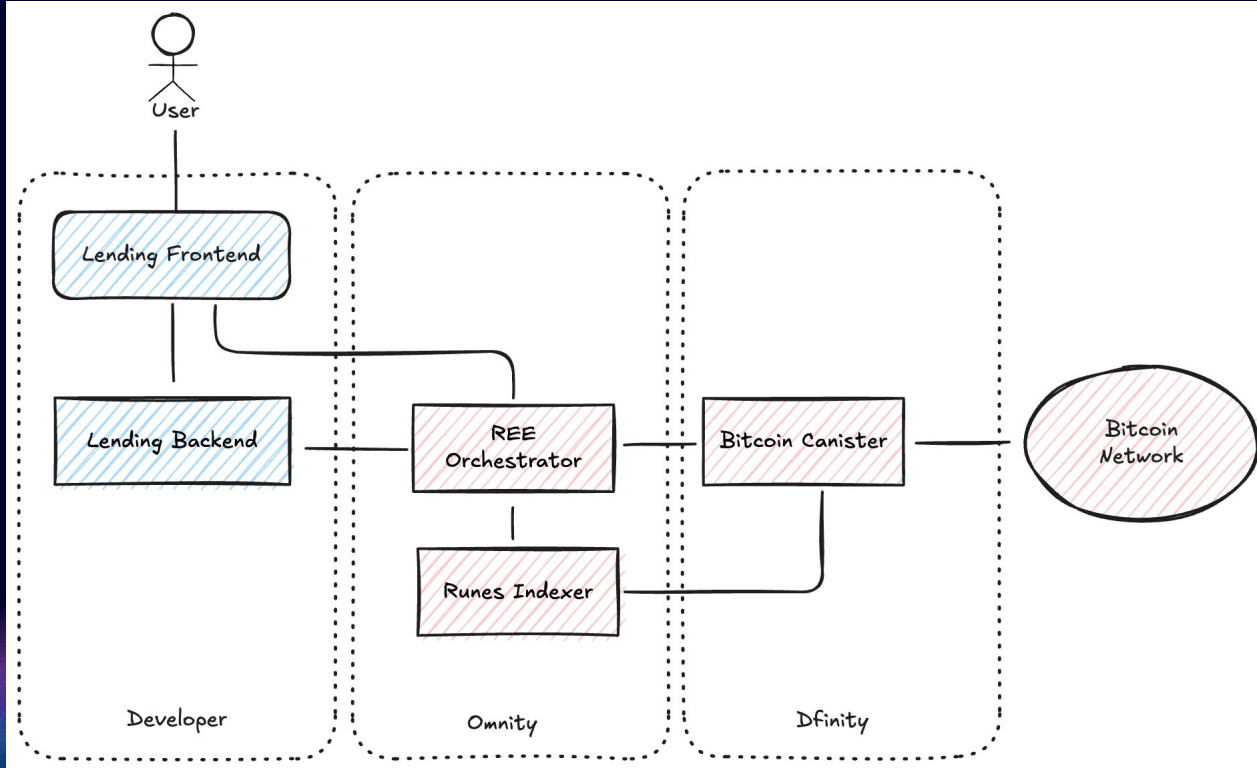
Lending DApp: Key Features

- Asset Depositing
- Asset Borrowing
- Collateral Management
- Dynamic Interest Rates
- Liquidation Mechanism
- Asset Withdrawal

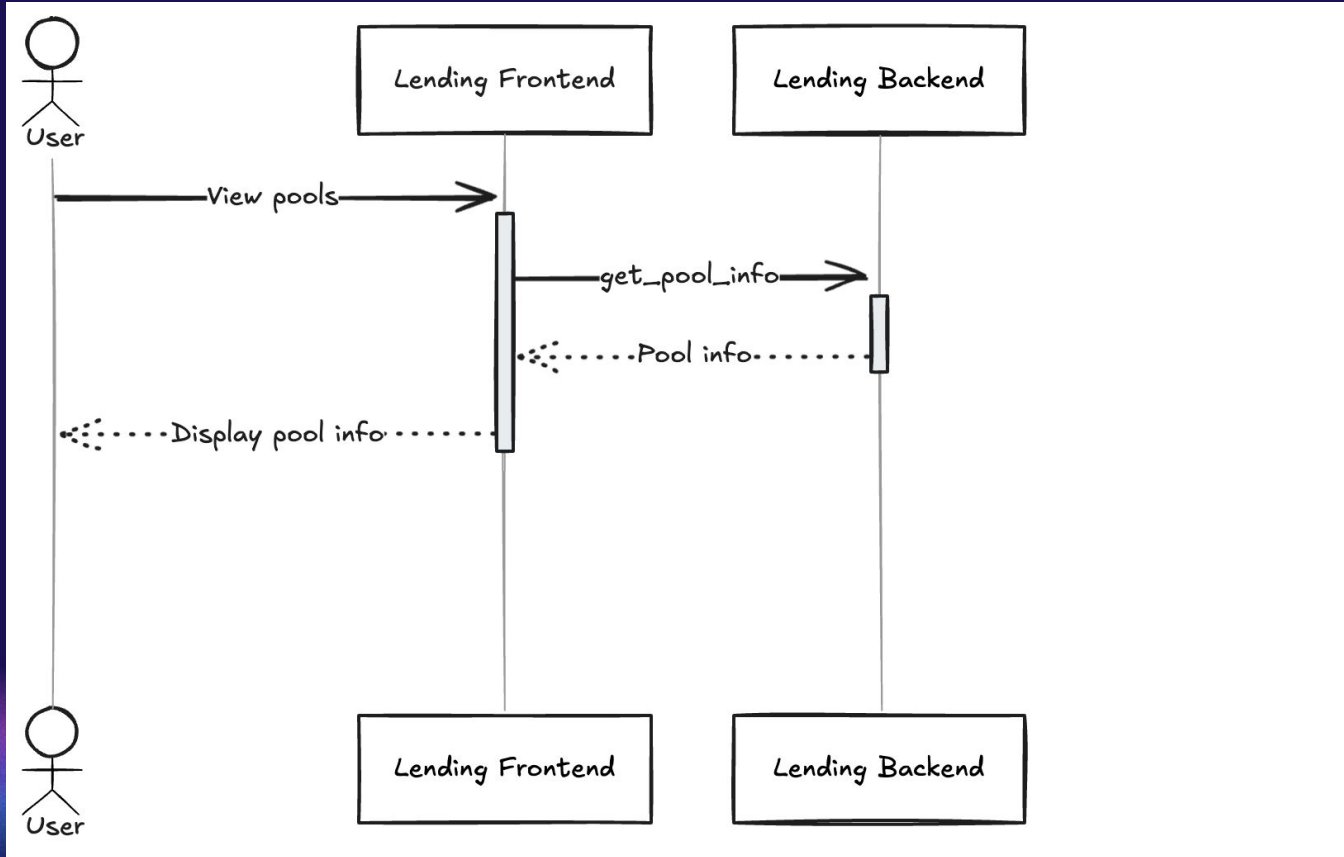
Live Demo & Resources

- Demo Link: <https://ree-lending-demo.vercel.app>
- Source Code: <https://github.com/octopus-network/ree-lending-demo>
- REE Types: <https://github.com/octopus-network/ree-types>
- Developer Documentation:
<https://docs.omnity.network/docs/REE/tutorial>
- Rich Pool Address:
<https://mempool.space/testnet4/address/tb1p4redmwv2m2zkh9tpcsyfhc5k49hc9hnaccmk55kgvy3spqujafgq34n21t>

Architecture Overview



Warm-Up Lap: Viewing the Pool

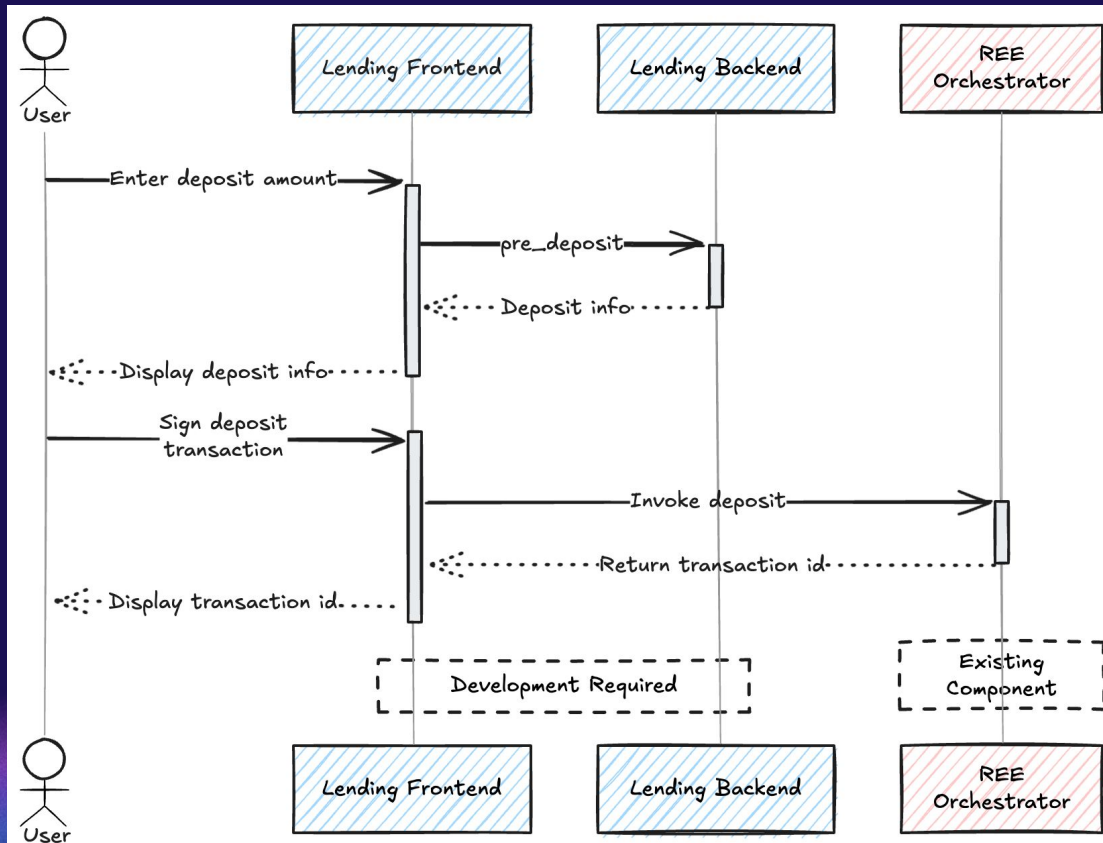


Recap of Previous Slide

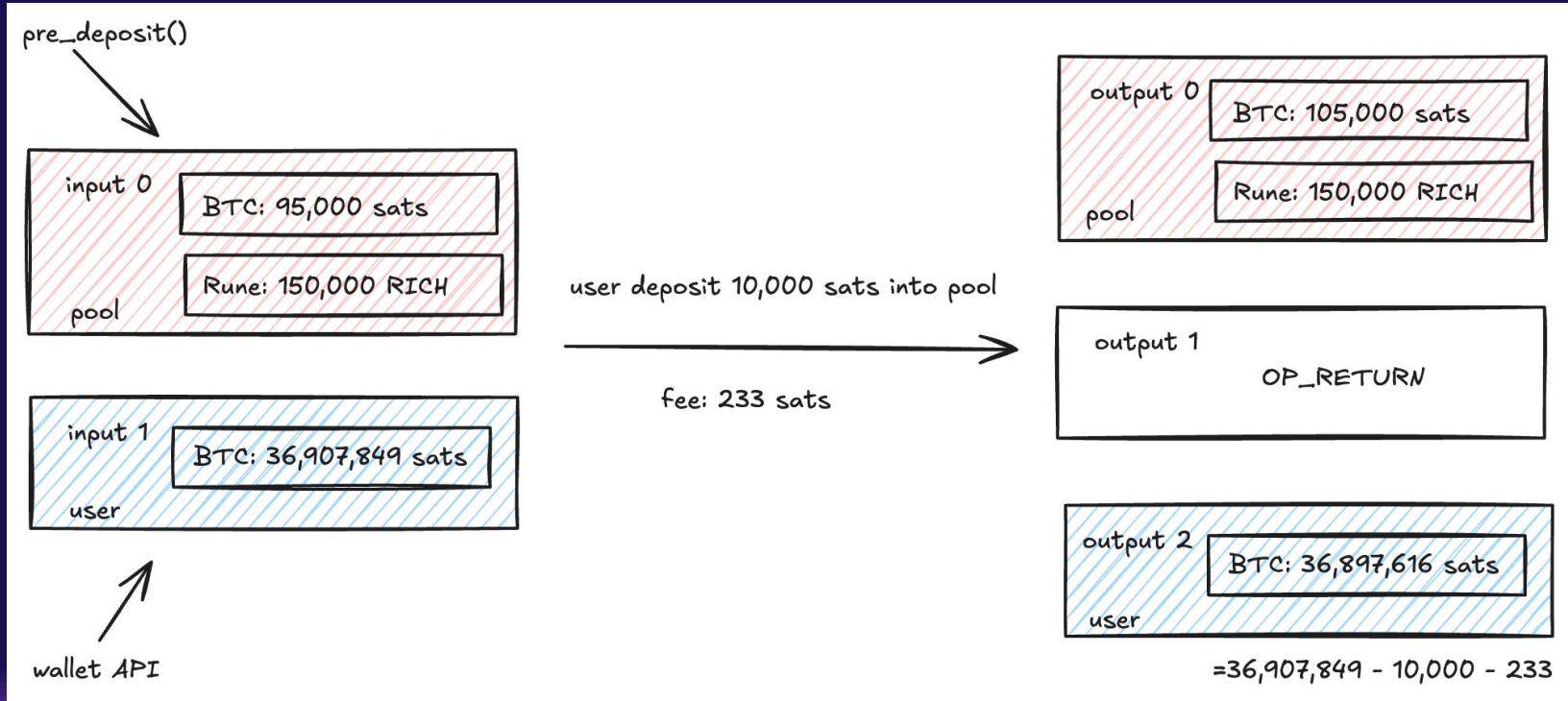
Three essential query methods for REE DApps:

- `get_pool_list()`
- `get_pool_info()`
- `get_minimal_tx_value()`

Asset Depositing



Understanding the UTXO Model



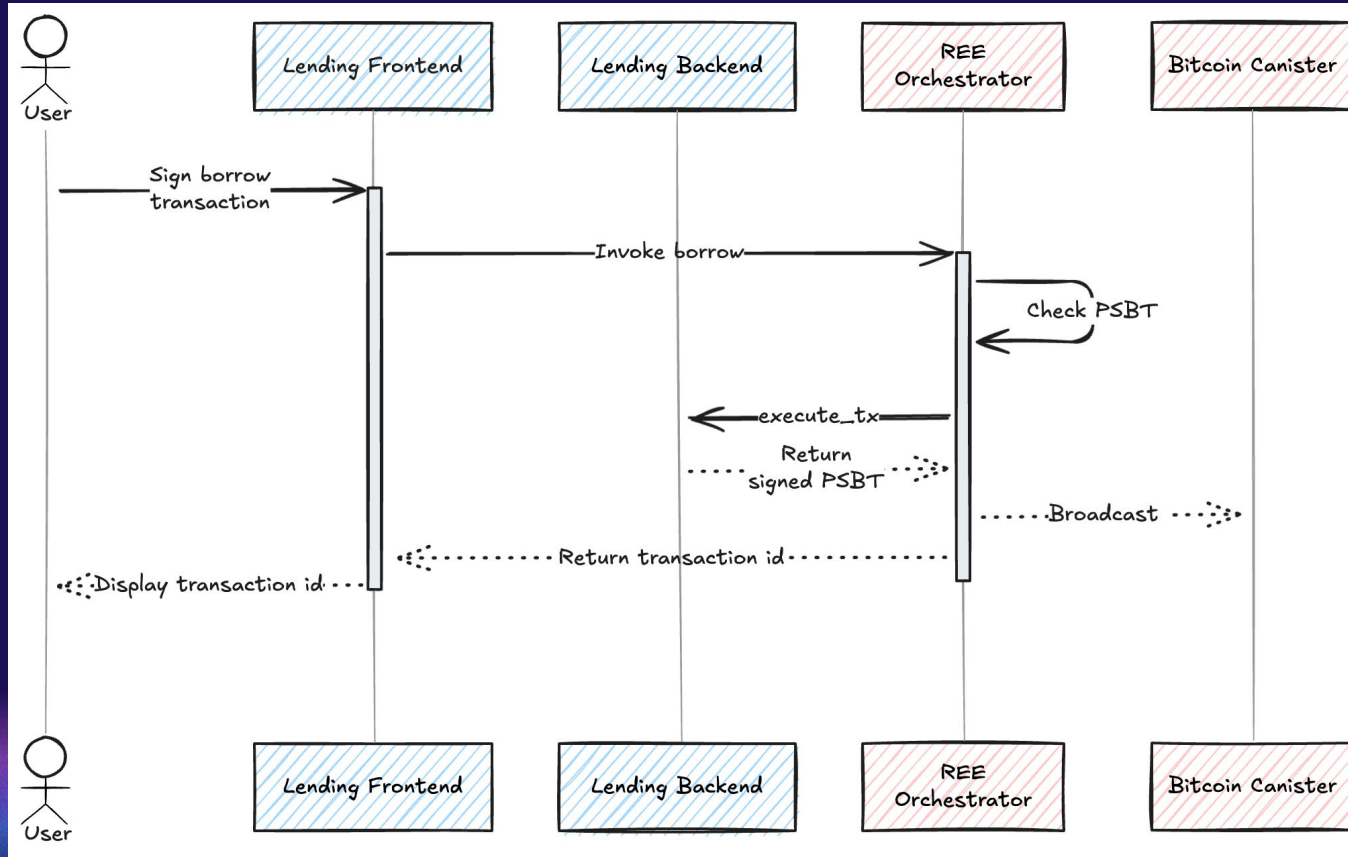
<https://mempool.space/testnet4/tx/e66c26d155a95464f84a0658546ded8a65466622e8b6f133567a57e813c53d04>

Recap of Previous Slides

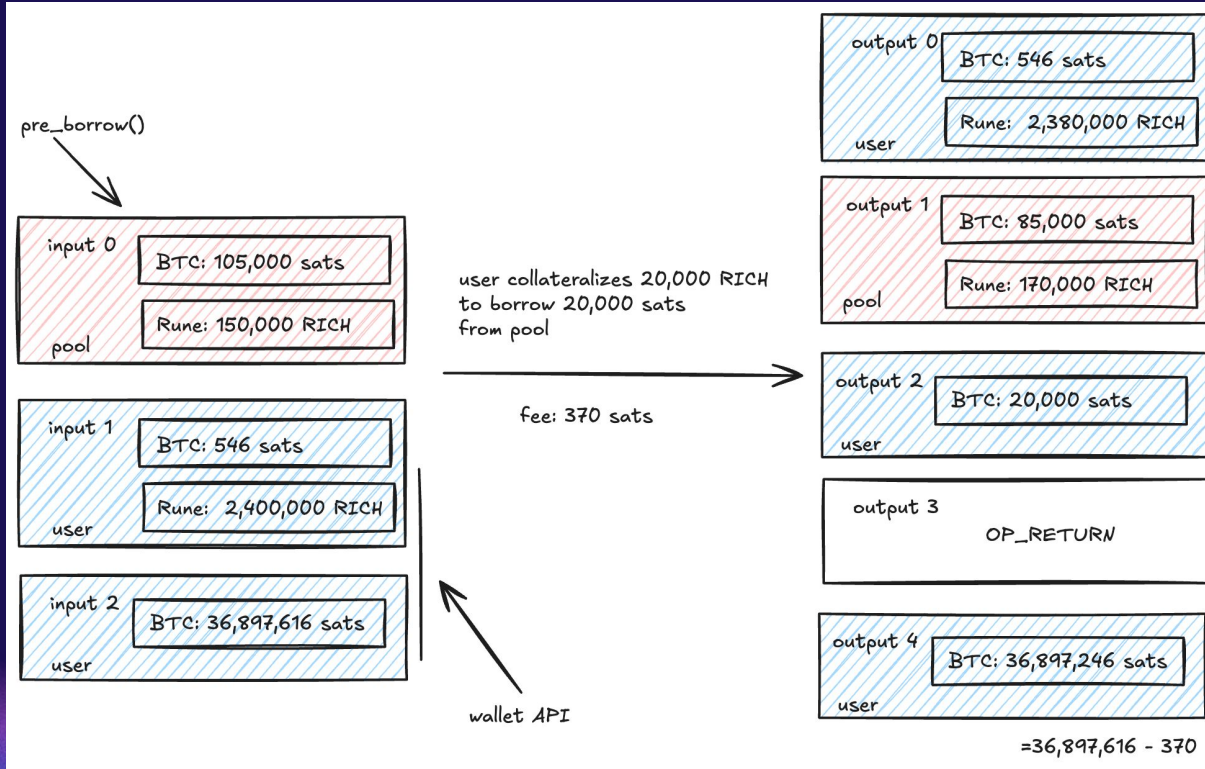
Key concepts covered:

- pre/invoke programming pattern
- UTXO computation model
- Core orchestrator call: `invoke()`

Asset Borrowing (Behind the Invoke)



UTXO Management in Borrowing



<https://mempool.space/testnet4/tx/6616cf7821dda6ea2c432fcad6759139f7753b54ba2f119c3c9dfb9acbf61a00>

Recap of Previous Slides

- Key REE DApp method:
 - `execute_tx()`
- Essential library methods:
 - `request_ree_pool_address()`
 - `ree_pool_sign()`

More Core Methods

- `new_block()`:
 - Notifies the REE DApp about finalized transactions.
 - handles state trimming and chain reorgs.
- `rollback_tx()`:
 - Reverts the REE DApp state, typically used to handle transaction failures.

Next Steps

- Enhance frontend and backend SDKs.
- Improve developer documentation.
- Provide technical support to developers building REE DApps.



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Thanks!