Q-VITRN Guidebook

Seal every byte. Prove it from the public ledger, even if our site disappears. The hands-on guide to every page of the desk. Live on Hedera testnet. November 2026.

Every byte of every file is sealed with ML-DSA-65 (NIST FIPS 204), and anyone can verify it from the public Hedera mirror, even if our site disappears. This guidebook takes you from a fresh browser to a verified seal, then through every screen, button and field on the desk, with checks you can repeat with your own eyes. The whitepaper is the longer scientific companion.

Why Q-VITRN, in one page

Proof points

- Every byte, every file: up to 4,096 files sealed under one ML-DSA-65 (NIST FIPS 204) signature. 4,096 files took 26.8 s in a recorded testnet run.
- Fast: about 4.3 s from pressing Seal to a public receipt for 5 files (recorded testnet run).
- Independent: verify.mjs checks a seal from the public Hedera mirror alone, and it passed with this website blocked.
- Low cost: about $0.009 per seal at Hedera's published fees. That figure is our own arithmetic, an estimate, not a quote.
- Private: files never leave your browser. Only SHA-384 fingerprints are sent.

Who it is for

- Archives and records: prove a collection is byte-for-byte what you received.
- Legal and evidence: fix a file set at a moment in time and hand over a receipt the other side can check without trusting you or us.
- AI-agent safety: hold an agent's risky change until a named human approves the exact digest (Action Guard), and receipt every AI job with its prompt, model and output hashes.

Where it stands, plainly: live on Hedera testnet and open for pilot partners. There is no independent audit yet and no named user yet, and no mainnet topic exists. QVUSD is test credit, not a dollar. The Hedera account key that pays fees is still classical (ECDSA). provesHardware is false and qrng is false.

The live desk is https://qvitrn.vercel.app, with the same build at https://qvitrn-desk.vercel.app. Connect with MetaMask or a browser wallet made on the page, or paste a testnet account id. Never paste a private key or a recovery phrase into the page, a form, or a chat.

Board status while this book is current: all ten stages are live under the owner rule of 8 November 2026 (end-to-end on the testnet mirror; desk-held test keys allowed with the signer type written on the board). The stamp route does not mint. Live with a desk-held signer type is not the same claim as an outside wallet.

Part A. The idea before any button

A.1 What the desk is

Q-VITRN is a public test desk. It lets a person seal a document, a batch of lines, or a small job, then lets anyone else check that seal later without trusting the person who made it.

The seal is not a picture of a stamp. The desk hashes the text, checks a post-quantum signature, and writes a short record to a Hedera Testnet topic. The topic is a public log. Once a line is in that log, the operator cannot

quietly take it back.

Think of a notebook in a city library. You write one line: this exact file existed, and this public key agreed, at this ordered place in the book. You do not write the file itself. Anyone can open the notebook later and see the line. They cannot see a private key, and they cannot edit an old line.

That is the whole product in one sitting. The hard part is making the agreement hard to forge, including by a future machine that can break today's ordinary signatures. The agreement used here is ML-DSA-65, a lattice signature published by NIST as FIPS 204. The notebook is Hedera Consensus Service topic 0.0.11345042. The small payment token is QVUSD, 0.0.11345194. It is a test token.

A.2 Why a blockchain is involved at all

A hash on your own website can be edited when nobody is looking. A signature in a PDF depends on a key that a large-scale quantum attacker is expected to be able to forge. Hedera's own account keys are still classical. The desk does not replace those keys.

The desk checks a lattice signature off the ledger, then writes a SHA-384 commitment into a log that many mirrors keep. A stranger can re-read the log. That is the narrow reason to use a chain here: a public, ordered, hard-to-erase line.

The log does not understand the sentence. If the desk writes that a chip returned the counts 53, 45, and 2, the log preserves that sentence. It does not rerun the chip. This is why the notary page keeps provesHardware false even after a real IBM job. Honesty is the label, not a louder adjective.

Blockchains are often sold as truth machines. They are not. They are expensive notebooks. Applications that need truth need a checkable function from evidence to sentence. Hashes, signatures, Merkle proofs, and published counts are checkable. Adjectives are not. This desk exists to keep that distinction visible.

A.3 Why a lattice seal matters

Ordinary signatures on the internet, and on Hedera accounts today, use mathematics that a large-scale quantum attacker is expected to break with Shor's algorithm. Planning a public log as if that computer will never exist is a choice. This desk makes the other choice for the agreement about the job.

ML-DSA-65 is large on purpose. The public key is 1,952 bytes. The signature is 3,309 bytes. A Hedera topic message is only 1,024 bytes before chunking. So the desk verifies the large signature off the ledger, stores the packed bytes in a public file, and writes the short fingerprint onto the topic.

That design is not a claim that nobody else has ever anchored a heavy proof. It is the constraint this repository is built around. The topic id is the evidence of what this desk wrote.

A.4 Words you will see on every page

- Account id. A Hedera name such as 0.0.11353312. It is not a private key.
- 0x address. The 40-character form of an ECDSA account. The desk can look it up on the mirror and turn it back into 0.0.something.
- Operator. Account 0.0.10015230. It pays the topic fee. A transaction id that starts with this account is the fee payer, not automatically the user.
- Payee. The account the message names as yours.
- Topic. The public log, 0.0.11345042.
- Sequence. The line number in that log.
- QVUSD. Test token 0.0.11345194. Decimals are 0. It does not redeem for a bank dollar.

- Mirror. A public API that reads the ledger. HashScan is the human view.
- Live. A stage whose important fact is on the ledger and can be re-read, without overclaiming, with signer type stated.
- Partial. Reserved for a future limit that cannot yet pass end-to-end on the mirror.
- provesHardware. A flag. It is false.
- qrng. A flag. It is false.

Part B. Before you test

B.1 Browser and account

Use a desktop browser. Have a Hedera testnet account. The Hedera developer portal can create one and show an account id. That account is not inside HashPack until you import it there. Creating an ECDSA account inside HashPack creates a new id. It will not automatically be the portal account.

If you want a token balance to change, open Tokens in the wallet and associate 0.0.11345194. Until that association exists, a token transfer to the account fails. An HBAR balance is not a QVUSD balance.

The operator stops spending when its own balance would fall through the last 5 HBAR. Your HBAR does not pay the file-create fee. A 4 kilobyte signature file needs a fee cap above 5 HBAR. The cap on the desk is 20 HBAR, paid by the operator.

B.2 What never to paste

Do not paste a seed phrase or a private key into the page, a form, or a chat. Do not store private keys in the repo. A stage is live when the mirror shows the end-to-end fact. Desk-held test keys are allowed; the board must say desk-held test key or outside key.

If you already pasted one in a chat, treat that account as burned. Move any remaining balance to a new account you create yourself. Do not send the new private key to anyone.

Do not describe the desk as quantum hardware, a dollar, or the only post-quantum project. Do not expect HashPack to show a portal account that was never imported. Do not expect a stamp to increase your QVUSD balance while the route says it does not mint.

B.3 The left sidebar

On a wide screen the sidebar is always there. On a phone, press Papers at the top left. The top group opens the guidebook and the whitepaper. A ledger spreadsheet may also appear as a convenience copy. The roadmap is not in this list. The lower group is the desk itself.

- Desk — the home page. Status, a stamp form, and the receipt.
- Stamp — one document, a lattice key, and a payer signature when the job is paid.
- Batch — several lines, one hash.
- Rollup — many fingerprints folded into one root.
- Stages — the ten-part status board with signer types.
- Fault — the omitted-leaf check.
- Check — paste text and see if its hash is already on the topic. Free. Writes nothing.
- Consume — mark a seal as used.
- Offer — what is actually for sale, and what is not.
- Readiness — whether the public topic, the signature check, the free check, and the operator reserve are in place.

Other pages you may open from links or from memory: Why, Method, Field, Books, Timeline, Card, Build, Path, Services, and Starstream. None of those pages move tokens by themselves. They explain the desk.

Part C. Page manual — Desk, the home page

The home page is the working counter. It shows the operator, the topic, the token, and the wallet bar. Connect HashPack or MetaMask, or type an account id such as 0.0.11353344 and press Use account. The page asks

the mirror. If the account exists, it shows the HBAR balance and the QVUSD balance.

HashPack's pairing screen only lists ECDSA accounts already inside the extension. If the list is empty, the extension does not contain one. Menu, add account, create new, advanced, ECDSA. Do not send the new private key to anyone. If HashPack says the site is malicious, that is its blacklist of the address you opened.

A tool on the desk quotes a small fee in micro-USD. A paid stamp asks the connected ECDSA key to sign a short sentence of the form q-vitrn/transfer@1, then the account, the amount, and a nonce. The lattice key signs the job. Those are different keys on purpose. The lattice key is not a Hedera account key.

When the receipt says Anchored, read both lines. The sequence is the log line. The transaction id is who paid the network. If the settlement says no token was minted, your QVUSD balance will not change. That is the current rule. The route will not mint.

Fields and buttons you will meet: the account box, Use account, Connect HashPack, Connect MetaMask, the purpose or title field, the document box, Cut a lattice key, Sign the job, Sign the payment, Stamp on testnet, and the receipt panel. If a button is disabled, read the muted line above it. It usually means a missing signature, an empty document, or a busy request.

Test: paste your account id, confirm the HBAR figure matches HashScan, leave the document empty, and confirm Stamp stays refused. Then type one sentence, cut a key, sign, and only then submit.

Part C. Page manual — Stamp

Open Stamp. Type a title and a document. The hash appears as you type. It is a SHA-384 digest: 96 lowercase hex characters. Change one letter and the digest moves.

Cut a fresh lattice key in the page if the button is there. The secret key stays in the browser for that session. It is not the operator key. Sign the job with that key. The page verifies the signature locally before it talks to the server.

Set the payee to the account you connected. Any testnet account is allowed. The old five-account allowlist is gone. If the gross amount is above zero, the payee must sign the payment sentence. If that signature is missing, the desk refuses the stamp with a clear sentence: the payee has not signed the mint. Nothing was minted. Even after a good signature, nothing is minted. The sentence is about authorization, not about creating tokens.

Press Stamp on testnet. A success writes a public file for the large signature and a topic message for the short record. Then open HashScan on the sequence. You should see your account in the payee field and the operator as the payer of the transaction. Sequence 37 is the pattern for that clerk-and-author split.

What failure looks like. Not allowlisted is an old error and should not return after the current deploy. INSUFFICIENT_TX_FEE means the fee cap was too low for the file, not that your HBAR was empty. operator_unset means the server has no operator key. A broken lattice signature is rejected before any fee is spent. A reused nonce or a repeated intent hash is refused by the recent window.

Worked example. Title: Classroom seal. Document: The meter reading for Tuesday was 41. Cut a key. Sign. If the amount is not zero, sign the payment sentence with the wallet. Submit. Copy the sequence. Open Check in a private window. Paste the same document. Confirm the hit. Change Tuesday to Wednesday. Confirm the miss.

Part C. Page manual — Batch

Batch takes several lines and hashes them as one list under the label q-vitrn/batch@1. Use it when a folder of names, or a list of readings, should share one seal. One changed line changes the hash. Check can recompute the same batch hash if you paste the same lines.

Fields: the multiline box, the title, the payee, the nonce, Cut key, Sign, and Submit. Empty lines are dropped. The page caps the list so a pasted novel does not become a surprise bill for the operator.

Test: write three short lines, note the hash, change one line, and confirm the hash moves. Paste the original lines into Check. A match means those lines were the preimage someone wrote down. It does not mean the lines were true.

Domain separation matters. A one-line document stamped on Stamp is not the same digest as a one-line batch, because batch always includes the q-vitrn/batch@1 label. Keep the label. Removing it to make a demo match is a bug.

Part C. Page manual — Rollup

A rollup here is a Merkle tree of SHA-384 leaves. Many fingerprints become one root. A proof is the short list of sibling hashes that lets a stranger recompute the root from one leaf. Stage 2 is live because roots of this shape are on the topic, including sequence 16.

Open Rollup. Submit a small set if the page allows it. Then open Check or the verify route with one leaf and the siblings. If the recomputed root matches the topic, that leaf was in the set that was anchored. If a leaf was left out, the fault page is the place that fact is named.

Pairs are sorted before they are hashed so a prover cannot depend on a secret left-right rule. Students should implement the fold once on three short strings and compare the root with the desk. If the roots differ, the sort or the delimiter differs. Do not tweak the checker until it passes. Find which rule you dropped.

Part C. Page manual — Stages

Stages is the honest board. All ten rows are live under the owner rule of 8 November 2026. Read the detail line and the signer type, not only the word live. Desk-held test key is not the same claim as outside key.

Signer type is part of the evidence. A desk-held test key means the desk held that wallet for the end-to-end mirror check. An outside key means the desk never held it. The whitepaper explains each limit that remains (provesHardware false, qrng false, stamp does not mint).

The words on the page come from the same status function the tests call. If the page and the repository file disagree, the deployed commit is old. Prefer the mirror for facts, then update the code.

Part C. Page manual — Fault

Fault shows an omitted leaf. Sequence 34 names a full SHA-384 leaf that is not inside a named root. The main bond account 0.0.11354662 still holds 10000 QVUSD unmoved. A smaller test vault was cosigned on the mirror with a desk-held test key, which is why stage 10 is live with that signer type stated.

Test: open the topic on HashScan, read sequence 34, and compare the leaf and the root with the page. You are checking the desk's sentence against the public log. You are not being asked to trust a screenshot.

An empty Merkle proof claims the leaf is the root. The printed leaf is not the root. Failure is the finding. Do not add a fake sibling to force a match.

Part C. Page manual — Check

Check is the page a counterparty uses. Paste the document, or paste a 96-character SHA-384. Optionally type a sequence. The page reads the mirror. It does not send a transaction and it does not see a signature. A hit means that digest was written. It does not mean quantum hardware ran, and it does not mean the document was true.

Fields: Document textarea, Or the SHA-384 itself, Optional sequence, and Check. If you paste more than one line, and the raw hash misses, the page retries under the batch domain separator. If a hit exists, the page also looks for a consume mark.

Test with a sentence you just stamped. You should see the sequence. Change one character and the hit should disappear. If Check says the mirror did not answer, wait and try again. That is a read failure, not a lost seal.

Part C. Page manual — Consume

Consume writes a second record that points at an earlier sequence and says that seal has been used. The second record is itself a hash of the sequence number and the original digest. A later Check can see the spent mark. This stops a courtesy workflow from treating one seal as unused forever. It does not delete the original line. Nothing in the topic is deleted.

Test only on a seal you created. Note the original sequence, consume it, then Check both the original text and the spent mark. Both can be present. Presence of the spent mark is the signal, not absence of the original.

Part C. Page manual — Offer and Readiness

Offer says what a buyer would be paying for and what they would not be paying for. Read it before you describe the desk to someone else. If a sentence on Offer is more cautious than a sentence in a chat, believe Offer.

Readiness lists four conditions: the topic is open, the lattice signature is checked before submit, Check is free, and the operator reserve holds. A red row is a reason not to call the desk finished. A green board does not make stage 10 live. It means the desk is fit to be looked at.

Part C. Page manual — Why, Method, Field, Books, Timeline, Card, Build, Path, Services, Starstream

Why and Method are the short essays. Field says who is not served. Books is the same public record in a quieter layout. Timeline follows an account. Card is a key card, not a login. Build is for a caller who wants the shape of a request. Path is a numerical sketch of fees, not a forecast of revenue. Services lists jobs the desk can describe. Starstream records what was learned from that design and what was not copied.

None of these pages move tokens by themselves. Use them to explain the desk without inventing a second product.

Part C. Page manual — Papers

Papers lists the guidebook and the whitepaper. Open each PDF. Confirm the roadmap is not listed. The whitepaper should be the long scientific companion. The guidebook should be this manual. If a PDF is an old short stub, the deploy is behind the repository.

The spreadsheet ledger, if linked from the sidebar, is a convenience copy. The mirror is the source. If they disagree, believe the mirror.

Part D. The ten stages in plain words

Use this board when someone asks whether the desk is finished. All ten are live under the owner rule, with signer types stated.

- 1 Gateway — live. Sequence 44 landed via a desk-held external signer process. The stamp route does not mint. Caveat: some Vercel routes still need the operator key for file-create. AWS ECDSA_SHA_256 is refused.
- 2 Rollup — live. Many hashes fold into one root. A proof shows one hash was in the set.
- 3 Notary — live. A real IBM ibm_fez job returned 53, 45, and 2 counts. The page does not claim this proves the chip. provesHardware is false.
- 4 Identity — live. A lattice public key is tied to an asset id. The secret key is never accepted.
- 5 Beacon — live. A public drand pulse is hashed onto the topic. It is not quantum randomness. qrng is false.
- 6 Auction — live. Account 0.0.11353344 sent 1 QVUSD to 0.0.10728892. That key was never given to this desk. A missed reveal still does not take tokens.
- 7 Relay — live. Desk-held test account 0.0.11360721 completed an end-to-end relay on the mirror. Signer type: desk-held test key.
- 8 Sandbox — live as simulator-vs-hardware comparison recorded. TVD 0.05. Sequence 45. Bit 0 is rightmost. provesHardware is false. The two tapes remain different measurements.
- 9 Escrow — live. Test cage 0.0.11360740 / schedule 0.0.11360741 cosigned and executed with a desk-held test key. The reserved outside cage 0.0.11357853 is untouched.
- 10 Fault — live. Test vault 0.0.11360744 cosigned move on the mirror. Signer type: desk-held test key. Main vault 0.0.11354662 still holds 10000 QVUSD. Referee contract remains design-only.

Part E. A full testing walkthrough

E.1 From a blank browser

- Open https://qvitrn.vercel.app. Press Papers if the sidebar is hidden. Confirm Guidebook and Whitepaper open, and that Roadmap is not listed.
- Return to Desk. Paste your testnet account id. Press Use account. Confirm the HBAR figure matches HashScan.
- Open Stamp. Type a sentence only you know. Set the payee to your account. Cut a lattice key. Sign the job. Sign the payment if the amount is not zero. Submit.
- Read the sequence. Open HashScan. Confirm the message payee is your account and the transaction payer is 0.0.10015230.
- Open Check in a private window. Paste the same sentence. Confirm the sequence. Change one letter. Confirm there is no hit.
- Open Stages. Confirm all ten say live, and read each signer type.
- Open the IBM notary note. Confirm the counts 53, 45, and 2, and that provesHardware is false.
- Open Fault. Confirm the omitted leaf story and that slash is false.
- Optional: Consume the seal you created, then Check again and look for the spent mark.

E.2 Testing without a wallet

You can complete Check, Stages, Fault, Offer, Readiness, and the papers with no wallet at all. You can complete a stamp with only an account id and a lattice key cut in the browser, as long as the payment signature rules for your amount are satisfied. If a paid stamp requires personal_sign and you have no wallet, use amount zero where the page allows it, or continue in a 1:1 setting where a masked key prompt can be used safely. Never paste a private key into this group chat or into the page.

E.3 Testing the outside-signer rule

Create an ECDSA account in HashPack. Send only the account id to a reviewer. Associate token 0.0.11345194. Have the reviewer send 1 QVUSD in from an account they control. Send 1 QVUSD out yourself. The outgoing transaction id must start with your account. If the reviewer could have signed it, the test fails. That is the Stage 6 pattern that already succeeded with 0.0.11353344.

Part F. Concepts for non-technical readers

Fingerprint

A hash is a fingerprint of bytes. Same bytes, same fingerprint. Change one bit, new fingerprint. You cannot steer the change. The desk uses SHA-384, which is 96 hex characters.

Signature

A signature is an agreement by a key. Anyone can hash a poem. Only the holder of the secret can sign it. The desk checks ML-DSA-65 for the job and ECDSA for the fee.

Public log

A topic is an append-only notebook kept by many mirrors. The operator can add a line by paying a fee. The operator cannot edit line 37 into a different line.

Clerk and author

The transaction id often starts with the operator. That is the clerk who carried the book. The payee field inside the message is the author.

Why blockchain needs a lattice seal

Chains already give order and public copies. They do not, by themselves, give a signature that is expected to survive a cryptographically relevant quantum attacker. Putting a classical signature on a chain still leaves the classical key as the long-term risk. Checking a lattice signature and anchoring a short commitment is one way to keep the public order without pretending the classical account key is post-quantum.

What this is not

Not quantum hardware you can rent from the home page. Not a dollar. Not a claim that ten live rows with desk-held signer types mean outside wallets signed everything. Not a place to paste a seed phrase.

Part G. Troubleshooting

- HashPack says malicious dApp — that is HashPack's list. Try qvitrn-desk.vercel.app or the account-id box.
- HashPack finds no ECDSA account — create or import one inside the extension. A portal account is not there until imported.
- Stamp disabled — missing document, missing lattice signature, or missing payer signature on a paid job.
- INSUFFICIENT_TX_FEE — the max fee on the operator transaction was too low for the file size. Not your empty wallet.
- Mirror miss right after success — wait a few seconds and Check again.
- No QVUSD arrived — association missing, or the route did not mint, which is the current rule.
- Stage evidence still naming a desk-held key — that is expected for several live rows; read the signer type.
- Check hit on the wrong text — you pasted a batch without the batch label, or the other way around.

Part H. FAQ

Is this mainnet?

No. Hedera testnet only.

Is QVUSD a dollar?

No. It is test token 0.0.11345194.

Did IBM prove the chip?

No. provesHardware is false. The counts are recorded. A count list can be copied.

Is the beacon quantum random?

No. qrng is false. It is a public drand pulse.

Why is my transaction id the operator?

The operator paid the fee. Read the payee field inside the message.

Can I paste my private key to finish a stage?

No. Do not paste or store private keys. Desk-held test keys used by the desk for mirror checks are labeled on the board; that is not a request for your seed phrase.

Where is the roadmap paper?

Removed from Papers. Built, next, and not are tracked in the repository notes, not as a brochure PDF.

How do I verify a seal without trusting the site?

Recompute the hash locally, fetch the topic message from the mirror, and compare. Or run node scripts/verify.mjs expected for the published sequence 37 and 38 outputs and the Stage 6 transfer. For a full lattice verify, fetch the material file and run ML-DSA-65.

What makes a stage live?

An end-to-end fact on the testnet mirror, without overclaiming, with the signer type stated (desk-held test key, desk-held external signer, desk-held operator, or outside key).

Why all ten live?

Because the owner rule of 8 November 2026 counts mirror end-to-end passes, including desk-held test keys, when the signer type is written on the board.

Part I. Where the record is

- Site: https://qvitrn.vercel.app and https://qvitrn-desk.vercel.app
- Topic: https://hashscan.io/testnet/topic/0.0.11345042
- Token: https://hashscan.io/testnet/token/0.0.11345194
- Operator: https://hashscan.io/testnet/account/0.0.10015230
- Escrow cage waiting for co-sign: 0.0.11357853
- Stage 9 release schedule (operator-signed, waiting for outside ScheduleSign): 0.0.11358624
- Bond vault: 0.0.11354662
- Stranger check, no operator key: node scripts/verify.mjs expected
- Research notes: docs/qvitrn/RESEARCH.md
- Source: available on request. Live desk: https://qvitrn.vercel.app

Private keys do not belong in the repository, the PDFs, or a chat. If one appears, treat it as burned.

End of guidebook.

Part J. Scenario labs

J.1 Lab: Stamp and Check

Stamp a proverb only you know. Check it in a private window. Change a comma. Show the miss. Write the sequence on paper.

Write what you expected, what you saw, and which public id you used. A lab note without an id is incomplete.

J.2 Lab: Batch domain

Stamp three names as a batch. Check with the same three lines. Check with the three lines joined as one document on Stamp's rules. One should hit. One should miss.

Write what you expected, what you saw, and which public id you used. A lab note without an id is incomplete.

J.3 Lab: Clerk and author

Decode a topic message. Write payer and payee as two different fields. If you only wrote the transaction id, redo the lab.

Write what you expected, what you saw, and which public id you used. A lab note without an id is incomplete.

J.4 Lab: Stages board

Open Stages. For each live row, open the cited transaction or sequence and write the signer type in one sentence.

Write what you expected, what you saw, and which public id you used. A lab note without an id is incomplete.

J.5 Lab: Fault leaf

Read sequence 34. Confirm the leaf is not the root. Confirm the bond still holds 10000 QVUSD.

Write what you expected, what you saw, and which public id you used. A lab note without an id is incomplete.

J.6 Lab: Flags out loud

Say provesHardware false and qrng false out loud while pointing at the page. A demo that hides the flags teaches a different product.

Write what you expected, what you saw, and which public id you used. A lab note without an id is incomplete.

J.7 Lab: Association

Create a fresh account. Confirm it can hold HBAR and still cannot hold QVUSD until association.

Write what you expected, what you saw, and which public id you used. A lab note without an id is incomplete.

J.8 Lab: Outside signer

Create an ECDSA account. Send only the account id. Never send the key. That discipline is the product for stages that still wait.

Write what you expected, what you saw, and which public id you used. A lab note without an id is incomplete.

J.9 Lab: Consume

Consume your own seal. Check the spent mark. Confirm the original sequence still exists.

Write what you expected, what you saw, and which public id you used. A lab note without an id is incomplete.

J.10 Lab: Readiness red row

If any readiness row is red, stop stamping and read the fail text before you retry.

Write what you expected, what you saw, and which public id you used. A lab note without an id is incomplete.

Part K.1 How fees look in micro-USD

This section exists so a tester can practice talking about how fees look in micro-usd without inventing a second product.

Start from the public objects: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230. Then open the page that shows the behavior. Then write one sentence that a stranger could check.

If your sentence needs a private key, a screenshot of a chat, or an adjective like quantum-proven, delete the sentence and start again.

The guidebook's job is to keep the desk usable. The whitepaper's job is to keep the mathematics honest. Both jobs fail when a stage is marked live without mirror evidence or without stating the signer type.

When you finish this section, reopen Stages and confirm all ten live rows and their signer types still match what you believe. If they do not, believe the mirror and file a correction.

Part K.2 How the operator reserve protects the fee account

This section exists so a tester can practice talking about how the operator reserve protects the fee account without inventing a second product.

Start from the public objects: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230. Then open the page that shows the behavior. Then write one sentence that a stranger could check.

If your sentence needs a private key, a screenshot of a chat, or an adjective like quantum-proven, delete the sentence and start again.

The guidebook's job is to keep the desk usable. The whitepaper's job is to keep the mathematics honest. Both jobs fail when a stage is marked live without mirror evidence or without stating the signer type.

When you finish this section, reopen Stages and confirm all ten live rows and their signer types still match what you believe. If they do not, believe the mirror and file a correction.

Part K.3 How session storage shows an account without being a login

This section exists so a tester can practice talking about how session storage shows an account without being a login without inventing a second product.

Start from the public objects: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230. Then open the page that shows the behavior. Then write one sentence that a stranger could check.

If your sentence needs a private key, a screenshot of a chat, or an adjective like quantum-proven, delete the sentence and start again.

The guidebook's job is to keep the desk usable. The whitepaper's job is to keep the mathematics honest. Both jobs fail when a stage is marked live without mirror evidence or without stating the signer type.

When you finish this section, reopen Stages and confirm all ten live rows and their signer types still match what you believe. If they do not, believe the mirror and file a correction.

Part K.4 How a nonce stops a simple replay

This section exists so a tester can practice talking about how a nonce stops a simple replay without inventing a second product.

Start from the public objects: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230. Then open the page that shows the behavior. Then write one sentence that a stranger could check.

If your sentence needs a private key, a screenshot of a chat, or an adjective like quantum-proven, delete the sentence and start again.

The guidebook's job is to keep the desk usable. The whitepaper's job is to keep the mathematics honest. Both jobs fail when a stage is marked live without mirror evidence or without stating the signer type.

When you finish this section, reopen Stages and confirm all ten live rows and their signer types still match what you believe. If they do not, believe the mirror and file a correction.

Part K.5 How a lattice key is cut in the browser

This section exists so a tester can practice talking about how a lattice key is cut in the browser without inventing a second product.

Start from the public objects: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230. Then open the page that shows the behavior. Then write one sentence that a stranger could check.

If your sentence needs a private key, a screenshot of a chat, or an adjective like quantum-proven, delete the sentence and start again.

The guidebook's job is to keep the desk usable. The whitepaper's job is to keep the mathematics honest. Both jobs fail when a stage is marked live without mirror evidence or without stating the signer type.

When you finish this section, reopen Stages and confirm all ten live rows and their signer types still match what you believe. If they do not, believe the mirror and file a correction.

Part K.6 How a material file is packed

This section exists so a tester can practice talking about how a material file is packed without inventing a second product.

Start from the public objects: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230. Then open the page that shows the behavior. Then write one sentence that a stranger could check.

If your sentence needs a private key, a screenshot of a chat, or an adjective like quantum-proven, delete the sentence and start again.

The guidebook's job is to keep the desk usable. The whitepaper's job is to keep the mathematics honest. Both jobs fail when a stage is marked live without mirror evidence or without stating the signer type.

When you finish this section, reopen Stages and confirm all ten live rows and their signer types still match what you believe. If they do not, believe the mirror and file a correction.

Part K.7 How HashScan and the mirror differ

This section exists so a tester can practice talking about how hashscan and the mirror differ without inventing a second product.

Start from the public objects: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230. Then open the page that shows the behavior. Then write one sentence that a stranger could check.

If your sentence needs a private key, a screenshot of a chat, or an adjective like quantum-proven, delete the sentence and start again.

The guidebook's job is to keep the desk usable. The whitepaper's job is to keep the mathematics honest. Both jobs fail when a stage is marked live without mirror evidence or without stating the signer type.

When you finish this section, reopen Stages and confirm all ten live rows and their signer types still match what you believe. If they do not, believe the mirror and file a correction.

Part K.8 How to read a base64 topic message

This section exists so a tester can practice talking about how to read a base64 topic message without inventing a second product.

Start from the public objects: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230. Then open the page that shows the behavior. Then write one sentence that a stranger could check.

If your sentence needs a private key, a screenshot of a chat, or an adjective like quantum-proven, delete the sentence and start again.

The guidebook's job is to keep the desk usable. The whitepaper's job is to keep the mathematics honest. Both jobs fail when a stage is marked live without mirror evidence or without stating the signer type.

When you finish this section, reopen Stages and confirm all ten live rows and their signer types still match what you believe. If they do not, believe the mirror and file a correction.

Part K.9 How to explain the desk to a classmate in one minute

This section exists so a tester can practice talking about how to explain the desk to a classmate in one minute without inventing a second product.

Start from the public objects: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230. Then open the page that shows the behavior. Then write one sentence that a stranger could check.

If your sentence needs a private key, a screenshot of a chat, or an adjective like quantum-proven, delete the sentence and start again.

The guidebook's job is to keep the desk usable. The whitepaper's job is to keep the mathematics honest. Both jobs fail when a stage is marked live without mirror evidence or without stating the signer type.

When you finish this section, reopen Stages and confirm all ten live rows and their signer types still match what you believe. If they do not, believe the mirror and file a correction.

Part K.10 How to explain the desk to a developer in five minutes

This section exists so a tester can practice talking about how to explain the desk to a developer in five minutes without inventing a second product.

Start from the public objects: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230. Then open the page that shows the behavior. Then write one sentence that a stranger could check.

If your sentence needs a private key, a screenshot of a chat, or an adjective like quantum-proven, delete the sentence and start again.

The guidebook's job is to keep the desk usable. The whitepaper's job is to keep the mathematics honest. Both jobs fail when a stage is marked live without mirror evidence or without stating the signer type.

When you finish this section, reopen Stages and confirm all ten live rows and their signer types still match what you believe. If they do not, believe the mirror and file a correction.

Part K.11 How to refuse an overclaim in a meeting

This section exists so a tester can practice talking about how to refuse an overclaim in a meeting without inventing a second product.

Start from the public objects: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230. Then open the page that shows the behavior. Then write one sentence that a stranger could check.

If your sentence needs a private key, a screenshot of a chat, or an adjective like quantum-proven, delete the sentence and start again.

The guidebook's job is to keep the desk usable. The whitepaper's job is to keep the mathematics honest. Both jobs fail when a stage is marked live without mirror evidence or without stating the signer type.

When you finish this section, reopen Stages and confirm all ten live rows and their signer types still match what you believe. If they do not, believe the mirror and file a correction.

Part K.12 How to update this guidebook when a screen changes

This section exists so a tester can practice talking about how to update this guidebook when a screen changes without inventing a second product.

Start from the public objects: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230. Then open the page that shows the behavior. Then write one sentence that a stranger could check.

If your sentence needs a private key, a screenshot of a chat, or an adjective like quantum-proven, delete the sentence and start again.

The guidebook's job is to keep the desk usable. The whitepaper's job is to keep the mathematics honest. Both jobs fail when a stage is marked live without mirror evidence or without stating the signer type.

When you finish this section, reopen Stages and confirm all ten live rows and their signer types still match what you believe. If they do not, believe the mirror and file a correction.

Extra manual: Stamp field matrix

This section is a deeper how-to for stamp field matrix on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: Batch field matrix

This section is a deeper how-to for batch field matrix on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: Rollup field matrix

This section is a deeper how-to for rollup field matrix on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: Check field matrix

This section is a deeper how-to for check field matrix on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: Consume field matrix

This section is a deeper how-to for consume field matrix on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: Stages reading guide

This section is a deeper how-to for stages reading guide on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: Fault reading guide

This section is a deeper how-to for fault reading guide on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: Offer caution guide

This section is a deeper how-to for offer caution guide on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: Readiness red-row guide

This section is a deeper how-to for readiness red-row guide on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: Wallet bar behaviors

This section is a deeper how-to for wallet bar behaviors on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: Account-id only testing

This section is a deeper how-to for account-id only testing on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: HashPack blacklist workarounds

This section is a deeper how-to for hashpack blacklist workarounds on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: MetaMask personal_sign path

This section is a deeper how-to for metamask personal_sign path on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: Fee quote reading

This section is a deeper how-to for fee quote reading on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: Receipt reading

This section is a deeper how-to for receipt reading on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: HashScan dual-link habit

This section is a deeper how-to for hashscan dual-link habit on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: Private-window Check habit

This section is a deeper how-to for private-window check habit on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: Spent-mark habit

This section is a deeper how-to for spent-mark habit on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: Outside-signer checklist

This section is a deeper how-to for outside-signer checklist on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: Burned-account checklist

This section is a deeper how-to for burned-account checklist on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: Classroom demo script

This section is a deeper how-to for classroom demo script on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: Investor caution script

This section is a deeper how-to for investor caution script on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: Developer onboarding script

This section is a deeper how-to for developer onboarding script on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: Incident: mirror lag

This section is a deeper how-to for incident: mirror lag on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: Incident: insufficient tx fee

This section is a deeper how-to for incident: insufficient tx fee on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: Incident: missing association

This section is a deeper how-to for incident: missing association on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: Incident: reused nonce

This section is a deeper how-to for incident: reused nonce on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: Incident: broken lattice signature

This section is a deeper how-to for incident: broken lattice signature on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: Incident: operator near reserve

This section is a deeper how-to for incident: operator near reserve on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.

Extra manual: Weekly verification checklist

This section is a deeper how-to for weekly verification checklist on the live desk at https://qvitrn.vercel.app.

Start on the page, read every label, and refuse any step that asks for a private key.

Confirm the public ids you will cite: topic 0.0.11345042, token 0.0.11345194, operator 0.0.10015230.

If the step is about status, reopen Stages and confirm all ten rows are live, and read each signer type, before you continue.

If the step is about hardware or randomness, say provesHardware false or qrng false out loud.

If the step is about money, remember the stamp route does not mint and QVUSD is not a dollar.

Write a five-line lab note: clicked, expected, saw, cited id, deleted adjective.

When finished, open Papers and confirm only the Guidebook and Whitepaper are listed.