COTO: the proposed model

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COTO connects carpet exporters and importers through verified product records, trade matching and USD-denominated contracts. Eligible buyers may fund a trade using Bitcoin through an approved payment partner. The target seller payout is bank money through a supported settlement route.

In a trader's words: Agree the carpet price in dollars. Attach its history, quality and shipment documents. Where permitted, the buyer pays the payment partner in Bitcoin. The partner converts it and pays the seller through the agreed banking route. COTO links the evidence to the order.

Three linked records: CARPET PASSPORT -> USD CONTRACT -> PAYMENT AND PAYOUT RECEIPTS. Each shares a trade ID. Product traceability does not itself move money.

Everledger inspiration: digital product identities, provenance events and integration APIs [1]. Its platform page does not establish Bitcoin processing. This is COTO's proposed architecture, not an Everledger partnership or a live service.

Principle: every contract and price stays in USD; crypto is an optional funding rail for eligible routes. No proprietary COTO coin is required. Stablecoins are digital assets, not USD bank deposits. This document does not activate checkout.

1. The carpet passport and trade

Create a passport ID and QR label for an individual carpet or defined production lot. Record origin, cluster, workshop, materials, construction, dimensions, quantity, unit, photographs, production dates, quality inspections and supporting certificates. Match available stock and monthly capacity to buyer volume, location, specifications, minimum order and lead time.

Track material receipt, weaving, finishing, inspection, packing, shipment and delivery. Each event identifies who submitted it, when, its evidence, verifier and status. Lot splits and merges retain parent links and quantity allocations; reserve stock against orders to avoid duplicate sales.

Separate self-declared claims from independently verified claims. Blockchain preserves recorded history; it cannot prove that a physical origin, labour or quality claim is true. Use tamper-evident labels, controlled re-labelling, shipment scans and independent checks to connect goods to records.

Store documents and personal information encrypted off-chain. Store signed event references and hashes on a permissioned provenance ledger, with optional public anchoring. Limit access by role, obtain consent for weaver information and append corrections without erasing history. A digital passport is not legal title by itself.

The signed USD order fixes buyer and seller, passport/lot IDs, quantity and tolerances, unit price, freight/insurance, total, Incoterms rule and named place, dates, inspection, acceptance, deposit/balance, documents, title/risk transfer, returns and disputes.

Keep gross USD invoice, USD fees and net seller proceeds separate. If the receiving bank converts USD to local currency, disclose that conversion: USD pricing does not guarantee a USD bank balance. AI may suggest matches and extract documents; humans approve claims and decisions.

2. Payment flow and accounting

1. Check the buyer, seller, COTO entity, countries, asset/network, amount, bank payout route and required trade documentation. The provider performs its own customer/business checks. Define whether each seller is the merchant or use an explicitly supported marketplace arrangement; do not pool seller funds in an ordinary COTO merchant account.

2. Create a provider invoice for the USD amount due, linked to the trade and milestone. Hosted checkout displays the approved asset/network, exact amount, quote expiry, fees and conversion terms. COTO holds no customer private keys or funds in the default design.

3. Buyer pays the provider. A transaction detected on-chain is not confirmed payment. Confirmations, screening, late payments and short payments follow provider rules. The provider converts and settles under its contract; record who bears rate exposure and when conversion occurs.

4. Verify signed webhook messages, prevent duplicate processing and reconcile against the provider API. Reconcile settlement reports to bank receipts. Keep funded, payout initiated and bank receipt confirmed as separate states. Release shipment or title only at the contractual milestone.

Illustration only: a USD 10,000 invoice at an assumed USD 100,000/BTC is 0.10000000 BTC before fees. This is not a market quote. The provider supplies the actual rate and asset amount, with a defined expiry. Record gross invoice, asset received, exchange rate, fees, net payout and bank receipt.

Normal states: draft -> signed -> eligible -> quote issued -> detected -> confirmed -> converted -> payout pending -> bank reconciled. Add explicit states for expiry, under/overpayment, wrong network, compliance hold, failed payout and refund.

Each deposit or balance has a separate invoice/reference. Link provider invoice, blockchain transaction, conversion receipt and bank reference to the trade. Keep sensitive banking information off public chains.

3. Eligibility, India and partners

Approve a complete corridor, not just a token. Record buyer/seller countries, COTO entity jurisdiction, merchant arrangement, bank country/currency, permitted assets/networks, transaction limits, screening, refund route and export reporting. APPROVED enables checkout; PENDING or UNSUPPORTED offers the approved bank alternative.

BitPay is a candidate to assess for Bitcoin checkout [2]. Its current settlement page specifies USD ACH settlement to banks in the USA [3]. This does not establish a USD payout route to Indian exporters. Obtain written confirmation of marketplace support, countries, limits, fees and banking arrangements before selection.

Coinbase Business is a separate stablecoin candidate: its payment page describes USDC settlement, and current transition guidance identifies US and Singapore legal-entity availability [4,5]. USDC settlement is not USD bank settlement or universal Bitcoin support.

For India-linked trades, default to an approved banking route. Keep crypto disabled until legal advisers, the exporter's authorised dealer bank and the payment partner confirm the complete route and reporting treatment. RBI export directions govern receipt and repatriation of proceeds [6]. Token receipt alone is not proof of completed export realisation.

FIU guidance addresses specified VDA services undertaken for others, including exchange, transfer and custody [7]. Assess COTO's actual activities even if a provider handles funds. FIU registration alone does not authorise every cross-border settlement. Obtain route-specific tax/accounting review without assuming uniform treatment.

Do not advertise crypto for every international trade. Neither a processor integration nor a blockchain entry resolves unsupported payout countries or export compliance.

4. Delivery, disputes and controls

A payment gateway is not delivery escrow. Normal settlement may reach the seller before goods arrive. Use clearly agreed deposit/balance terms, an appropriate bank instrument or a separately contracted, authorised escrow service that explicitly supports the asset and corridor.

If escrow is introduced, define inspection, shipping evidence, acceptance window, partial delivery, timeouts, dispute freeze, decision authority and release instructions. Code cannot determine carpet quality by itself. Do not claim protected escrow before the arrangement exists.

Refunds: define the USD obligation, fees and whether repayment is fiat or a newly quoted crypto amount. Do not automatically refund the original BTC quantity after price changes. A crypto refund is a new transfer, not reversal of the original. Verify the destination through the provider's controlled process.

Exception playbook: expired quote; wrong network; missing confirmations; under/overpayment; chain disruption; sanctions hold; duplicate callback; failed conversion or bank payout; missing shipping documents; damaged or partial shipment. Assign an owner, response deadline, audit record and escalation path for each.

AI assists volume/location matching, document extraction, missing evidence and inconsistent photos/specifications. Label suggestions and require human review for claims, disputes and sensitive payment decisions. AI scores are not proof of provenance or compliance.

Protect accounts with strong authentication and role permissions. Encrypt data; keep provider keys server-side; log administrative changes; use idempotency keys and verified webhook signatures. Never put wallets, private keys or settlement secrets in browser code.

5. Build plan and commercial model

Extend current onboarding into authenticated exporter/importer accounts, verification, catalogue/passports, volume/location matching, quotations, signed USD orders, payment milestones, shipment tracking and reconciliation. The current profile form is not an account or payment backend.

Core records: Party, Facility, Passport, Lot, Evidence, Verification, Trade, LineItem, Milestone, Shipment, PaymentQuote, ProviderInvoice, Transaction, Conversion, Payout, Refund, Dispute and AuditEvent. Use precise decimal values with explicit currency, asset and network identifiers.

Services: identity/access, catalogue/provenance, matching, USD orders, provider payment adapter, webhook/reconciliation worker, secure documents and operations console. Keep provenance records separate from payment-chain transactions and link them through trade IDs.

Phase 1: passports, verified participants and USD bank trade. Pilot real supplier/buyer records with consent and independent sample checks.

Phase 2: one provider, one approved corridor, sandbox first. Test quote expiry, duplicate/replayed messages, short/overpayment, failed conversion/payout, refund and bank reconciliation. Real funds require signed provider arrangements, a confirmed bank route, appropriate screening, customer terms and operational ownership.

Phase 3: capped pilot with manual oversight, then expand assets and corridors individually. Add milestone escrow only after a suitable authorised arrangement is secured.

Revenue candidates: USD subscription, passport/verification fee and disclosed trade coordination fee. Display processor/network fees separately. Track verified passport coverage, match-to-order rate, payment and payout success, reconciliation time, dispute rate and cost per settled trade.

Decisions before build: contracting entity/country, first corridor, seller-as-merchant or marketplace structure, payout bank/currency, asset/network, fees and FX risk, trade milestones, disputes and export reporting. Recommended initial scope: provenance plus USD bank trade; a Bitcoin option only for a proven eligible route.

Sources and basis

Sources reviewed 24 October 2026. Rules and provider support must be rechecked at implementation. External facts are sourced below; COTO's workflow, architecture and launch sequence are proposed design choices.

[1] Everledger - Our platform
Open source

[2] BitPay - Business payments
Open source

[3] BitPay - Settlement options
Open source

[4] Coinbase Business - Payments
Open source

[5] Coinbase - Commerce transition
Open source

[6] RBI - Export of Goods and Services (updated 17 July 2026)
Open source

[7] FIU-IND - VDA service provider registration guidance
Open source