TRADE ENABLER

Addendum: Governance Before Settlement

Extending SWIFT RMA, BIC, LEI, D&B, and ISO 20022 Securities Concepts into Tokenized Finance

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Purpose: This addendum supplements the existing Governed Digital Finance paper. It does not replace that paper. It clarifies the final submission thesis around ISO 20022 Securities alignment, SWIFT RMA-style permissioning, BIC/LEI/D&B-enriched wallet governance, issuer-authenticated token governance, and pre-settlement validation for tokenized deposits, securities, and real-world assets.

1. Final Submission Thesis

TradeEnabler proposes to extend SWIFT-style relationship governance into tokenized finance by creating a governed identity and authorization bridge between regulated institutions, legal entities, BICs, LEIs, D&B identifiers, verified counterparties, and approved blockchain wallets.

The central problem is not only whether a tokenized asset can move across a blockchain or interoperability layer. The institutional question is whether the receiving party has first been authenticated by the TradeEnabler layer, whether the wallet is controlled by that verified counterparty, and whether the jurisdiction, custody role, asset type, issuer policy, and settlement instruction are authorized before settlement occurs.

Governance Before Settlement means applying relationship, eligibility, authorization, custody, and policy controls before a tokenized deposit, digital security, sovereign gold reserve token, or other real-world asset is transferred.

2. From SWIFT RMA Logic to Wallet Governance

SWIFT Relationship Management Application (RMA) provides a familiar institutional model for controlling which counterparties can exchange which message types. TradeEnabler uses that governance logic as the conceptual foundation for tokenized finance.

Step	Governance Function	Why It Matters
1. Replicate RMA logic	Define which verified counterparties are authorized to exchange specific tokenized asset classes, settlement instructions, or governance attestations.	Creates a practical first step without requiring immediate changes to existing SWIFT infrastructure.
2. Link BIC, LEI, or D&B identity to wallets	Associate approved wallets with BICs for financial institutions, LEIs for corporates or legal entities, and D&B numbers where that identifier is the relevant commercial identity anchor.	Turns an anonymous blockchain address into a governed identity endpoint only after the counterparty is authenticated on the TradeEnabler layer.
3. Validate before settlement	Check the wallet, verified owner identity, jurisdiction, asset type, custody role, issuer policy, and transfer permission before settlement execution.	Prevents technical transfer from outrunning institutional authorization.
4. Extend toward SWIFT integration	Over time, integrate wallet governance with SWIFT RMA or SWIFT-connected permissioning so blockchain settlement inherits institutional relationship controls.	Creates a bridge from established financial messaging governance to regulated tokenized settlement.

3. Know Your Wallet: VLink, BIC, LEI, and D&B Enrichment

Know Your Wallet should not be limited to address screening. In the TradeEnabler model, a wallet can be linked to a BIC, LEI, or D&B identity only when the wallet owner has first been authenticated at the counterparty level on the TradeEnabler platform.

- For banks and regulated financial institutions, the wallet can be linked to the institution's BIC and validated through RMA-style permissioning.
- For corporates and legal entities, the wallet can be linked to the entity's verified LEI and counterparty profile.
- Where relevant, the wallet can also be associated with a verified Dun & Bradstreet identifier to support commercial counterparty authentication.
- For platform users, VLink can maintain the customer profile, BIC, LEI, D&B number, jurisdiction, permitted asset classes, custody role, and authorization status.
- For transactions, the wallet can be checked before settlement against its verified counterparty profile, wallet governance status, and the relevant asset policy.

This prevents an unauthenticated individual or unrelated business from attaching itself to a regulated institution's wallet identity. The wallet is not trusted because it has a label; it is trusted because the TradeEnabler layer has authenticated the counterparty relationship and linked the wallet to a verified BIC, LEI, or D&B identity record.

Because TradeEnabler already maintains customer data that can include BIC, LEI, and D&B fields, the Know Your Wallet layer can be implemented as an extension of existing customer onboarding and relationship data rather than as a separate identity silo.

4. Governance Oracle, Wallet Oracle, and Notary Nodes

The TradeEnabler model separates asset governance, wallet governance, and notarial authentication into complementary roles.

Component	Validation Role	Settlement Function
Governance Oracle	Validates asset-level rules such as country eligibility, issuer restrictions, regulatory perimeter, permitted holder types, transfer conditions, and settlement constraints.	Answers whether the asset can be transferred under its applicable governance and jurisdictional rules.
Wallet Oracle	Validates wallet-level authority by checking whether the wallet is linked to a verified BIC, LEI, D&B number, or RMA-style relationship profile.	Answers whether this wallet is an authorized endpoint for the relevant party, asset type, and transaction role.
Notary Nodes	Authenticate and evidence counterparty identity, wallet ownership, BIC/LEI/D&B linkage, issuer attestations, and policy validation outcomes.	Provide the trusted verification layer that allows wallet and asset governance to be relied on before settlement.

5. ISO 20022 Securities Business Model Alignment

The ISO 20022 Securities Business Model provides an appropriate foundation because the solution concerns the lifecycle of tokenized securities, tokenized deposits, and real-world assets before, during, and after settlement.

ISO 20022 Area	Existing Relevance	Proposed Enrichment
Party identification	Institution, counterparty, issuer, investor, custodian, broker-dealer	Add wallet owner role, BIC/LEI/D&B wallet linkage, wallet controller, counterparty authentication status, and approval status.
Settlement parties	Delivering and receiving parties, agents, custodians, settlement chain	Add wallet-level receiving/delivery authority, permitted redistribution role, and RMA-style relationship permission.
Securities identification	Security or financial instrument identification	Extend classification for tokenized deposit, digital security, RWA, SGRT, and issuer-authenticated token governance profile.
Safekeeping and custody	Accounts and place of safekeeping	Represent digital custody venue, approved wallet, and regulated custody perimeter.
Settlement instruction/status	Instruction, matching, settlement status, fails, reconciliation	Add pre-settlement governance attestation, wallet oracle result, issuer authentication, on-chain reference, off-chain legal/custody reference.
Reconciliation/position reporting	Positions, balances, movements, settlement confirmations	Reconcile token position, beneficial/legal ownership record, custody authority, and reserve/asset backing.

6. Settlement Inclusion vs Cross-Chain Connectivity

Cross-chain connectivity solves an important technical question: how can messages or assets move across networks. Settlement inclusion solves a different institutional question: who is allowed to receive, custody, redistribute, or settle the asset under recognized governance rules.

Dimension	Cross-Chain Connectivity	TradeEnabler TrustSignal Oracle
Primary focus	Connectivity between SWIFT infrastructure and blockchain networks.	Governed participation, eligibility, and authorization before settlement.
Main question	Can the transaction reach another network?	Is the counterparty authenticated, and are the wallet, institution, jurisdiction, role, and asset policy valid before transfer?
Identity anchor	Technical endpoint and interoperability route.	BIC, LEI, D&B number, VLink profile, wallet ownership, notary validation, and governance permissions.
Institutional value	Blockchain reach and interoperability.	Regulated settlement participation, custody confidence, and liquidity inclusion.

7. Illustrative Lifecycle Examples

Sovereign Gold Reserve Token (SGRT): A regulated bank or broker-dealer can receive a sovereign gold reserve token only if the issuer has authenticated the token governance rules, the counterparty has been verified by the TradeEnabler layer, and the receiving wallet is linked to the appropriate BIC, LEI, or D&B identity and authorized for the relevant custody or distribution role.

Tokenized securities: A broker-dealer in France could be authorized to receive a tokenized Canadian security where the wallet is linked to its institutional identity, jurisdictional permissions, issuer rules, and custody role, enabling compliant resale or distribution within its platform.

Tokenized deposits and brokered deposits: A bank deposit token remains a liability of a regulated institution. Governance Before Settlement can validate whether the receiving institution, wallet, relationship, country, and liability-transfer rules are permitted before the tokenized deposit is received or distributed.

8. Proposed Business Definitions and Fields

- Wallet-to-BIC linkage: approved wallet address associated with a SWIFT BIC and financial institution identity.
- Wallet-to-LEI linkage: approved wallet address associated with an authenticated legal entity identifier and counterparty profile.
- Wallet-to-D&B linkage: approved wallet address associated with a verified Dun & Bradstreet identity where relevant for business counterparty validation.
- Counterparty authentication status: verified, pending, restricted, revoked, or unauthenticated.
- Wallet authorization status: active, suspended, restricted, revoked, pending review.
- Wallet oracle validation result: pass, fail, conditional, expired, or manual review required.

- Token governance issuer authentication: issuer BIC, issuer identity, token policy profile, and approved rules for transfer, custody, and redemption.
- Permitted asset classes: tokenized deposit, digital security, RWA, SGRT, stablecoin, settlement token.
- Custody and redistribution authority: receive-only, custody, distribute, resell, redeem, or settle.
- Jurisdictional eligibility: permitted countries, regulatory perimeter, sanctions/compliance restrictions.
- Pre-settlement governance attestation: record that identity, permission, policy, and relationship checks passed before settlement.
- On-chain and off-chain references: blockchain transaction reference linked to legal ownership, custody, and settlement records.

9. Operating Flow: Governance Before Settlement

The operating flow below shows how identity, wallet ownership, issuer policy, and RMA-style permissions are validated before tokenized settlement is allowed to proceed.

Step	Stage	Validation Logic	Output
1	Counterparty authentication	TradeEnabler authenticates the bank, financial institution, corporate, or legal entity and records the relevant identity anchors: BIC, LEI, D&B number, jurisdiction, role, and relationship status.	Verified counterparty profile
2	Wallet binding	VLink / Know Your Wallet links an approved wallet to the verified counterparty. A wallet cannot inherit a BIC, LEI, or D&B identity unless the party has been authenticated on the TE layer.	Authenticated wallet-to-party linkage
3	Issuer token governance	The issuer authenticates the token governance profile, including permitted asset class, holder type, country rules, custody rights, redistribution rights, redemption rules, and required issuer/BIC identity.	Issuer-approved token policy
4	Wallet Oracle validation	The Wallet Oracle checks whether the wallet is authorized for the transaction role under BIC/RMA logic for banks, RMA where applicable for SWIFT-connected corporates, or LEI/D&B validation for other authenticated counterparties.	Wallet authorization result
5	Governance Oracle validation	The Governance Oracle checks asset-level and jurisdiction-level rules: country eligibility, issuer restrictions, sanctions/compliance perimeter, permitted holder type, and settlement constraints.	Asset governance result
6	Pre-settlement attestation	Notary Nodes evidence the counterparty authentication, wallet ownership, BIC/LEI/D&B linkage, issuer policy, Wallet Oracle result, and Governance Oracle result before settlement execution.	Governance-before-settlement attestation
7	Settlement and reconciliation	Once authorization passes, the tokenized asset, deposit token, security, or RWA can settle. The on-chain transaction reference is linked to off-chain legal, custody, and ISO 20022-aligned reconciliation records.	Auditable settlement and position record

10. Final Submission Implication

The final solution should be reviewed as an extension of the original Governed Digital Finance paper. The original paper describes the broader institutional and market thesis. This addendum clarifies the final Securities-focused implementation path: use ISO 20022 Securities concepts as the business-model base, enrich wallet identity with BIC, LEI, and D&B identifiers through Know Your Wallet / VLink, authenticate counterparties through the TradeEnabler layer, and apply RMA-style governance before tokenized settlement.

In this model, TradeEnabler does not replace SWIFT, ISO 20022, or existing regulated financial infrastructure. It creates a practical bridge that allows tokenized finance to inherit the trust, relationship governance, and institutional discipline that made the existing financial network usable at scale.