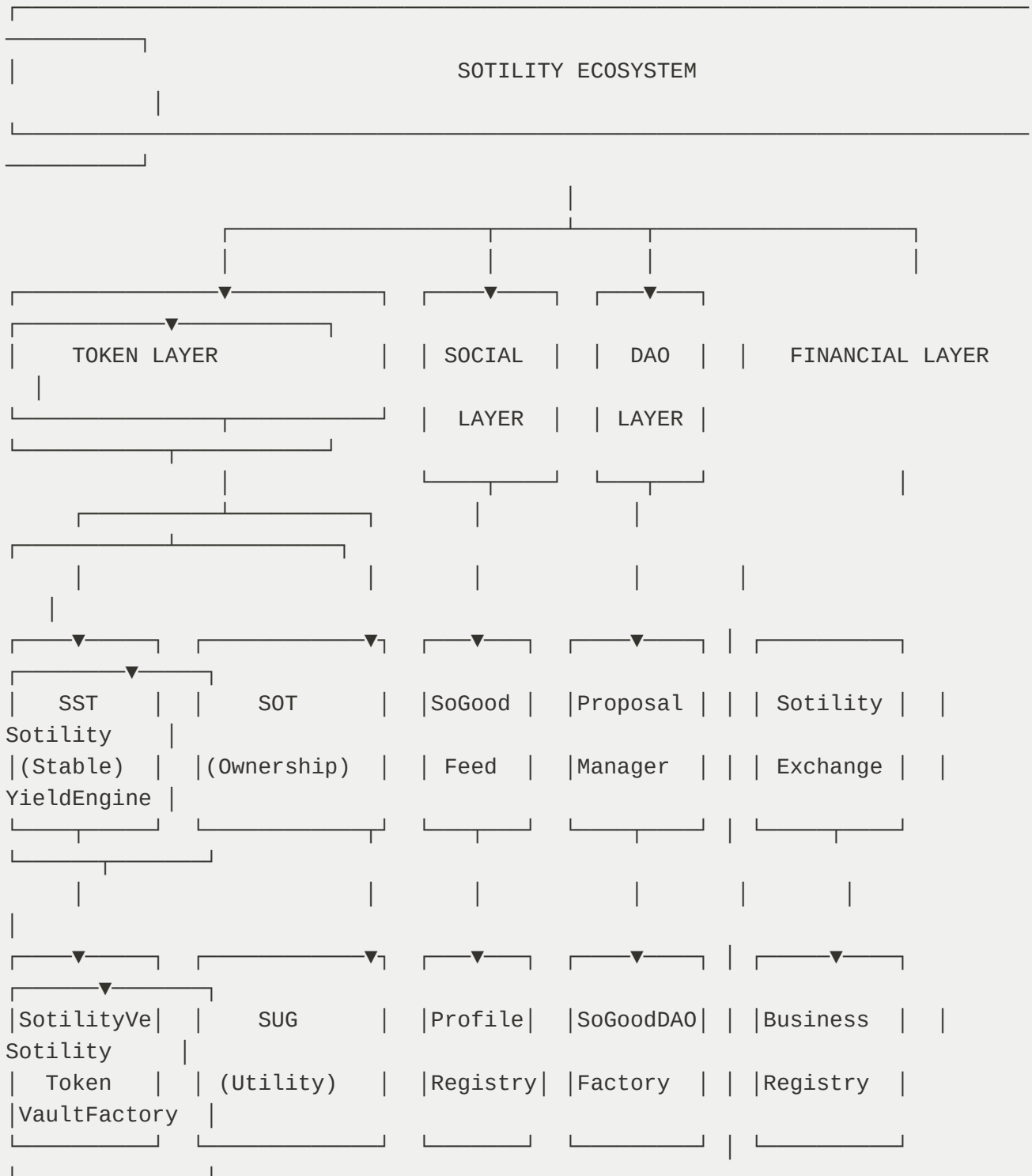
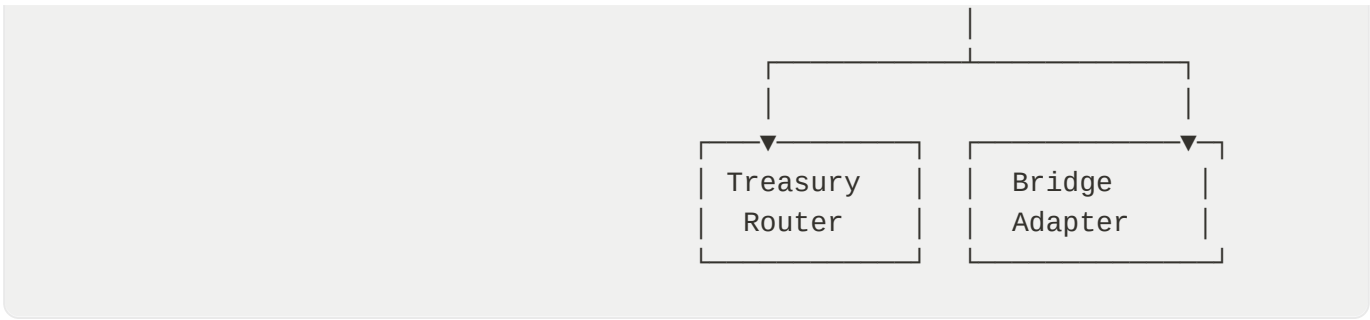


# Appendix A: Smart Contract Architecture Diagram

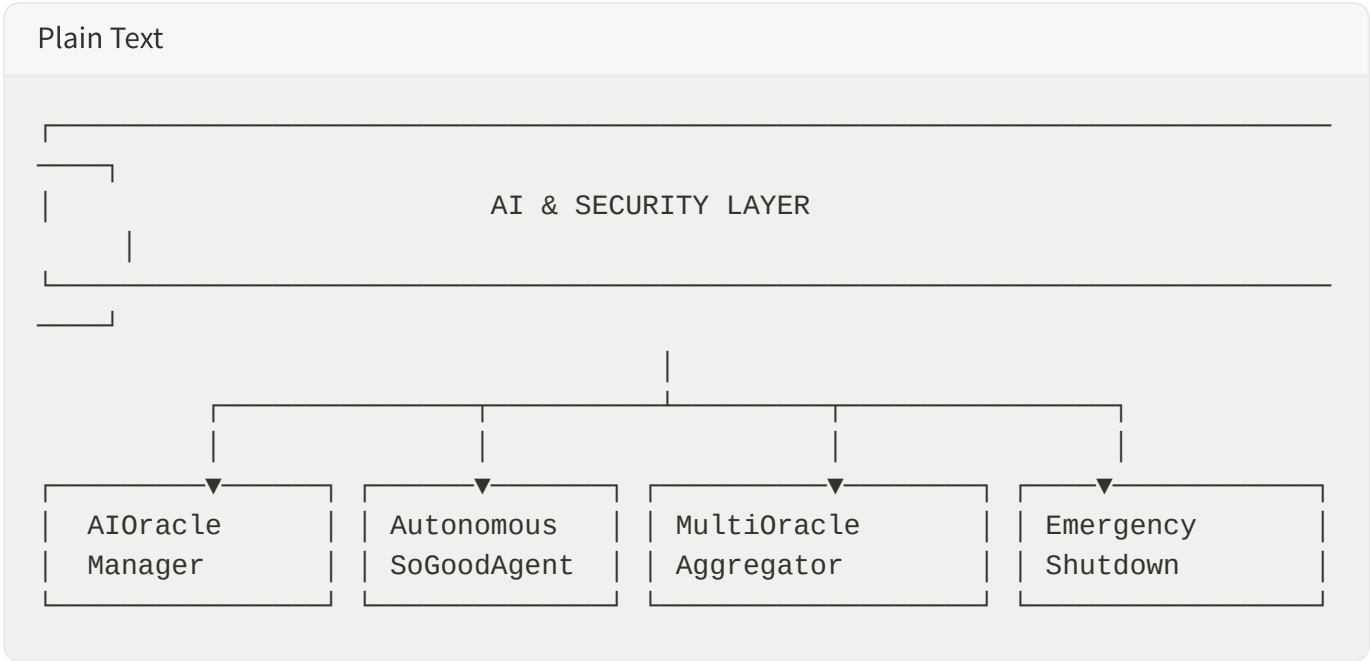
## Sotility Ecosystem Architecture

Plain Text

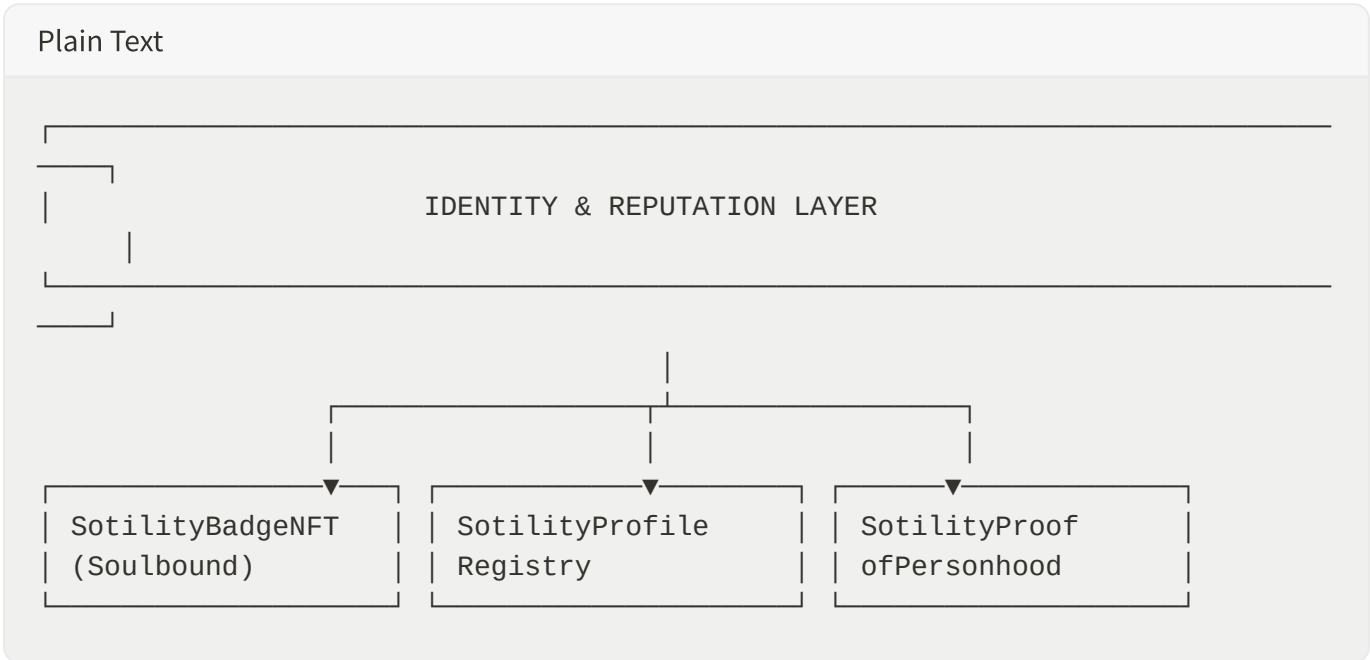




## AI & Security Layer



## Identity & Reputation Layer



# Cross-Contract Interactions

The Sotility ecosystem features extensive integration between contracts, with key interactions including:

## 1. Token Interactions:

- SOT holders can lock tokens in SotilityVeToken for enhanced governance rights
- SUG tokens are awarded by SoGoodFeed for valuable content contributions
- SST is minted against verified revenue through SotilityExchange

## 2. Social Layer & Verification:

- AIOracleManager verifies posts in SoGoodFeed
- MultiOracleAggregator combines data from multiple AI sources for enhanced security
- AutonomousSoGoodAgent monitors blockchain, evaluates content, and calls back contracts

## 3. Financial Flows:

- SotilityTreasuryRouter directs protocol revenue to SOT dividends, SST minting, and SUG rewards
- SotilityVaultFactory deploys isolated yield engines for different businesses
- SotilityYieldEngine manages staking strategies with AI optimization

## 4. Governance & Security:

- Emergency Shutdown can pause contracts during security incidents
- ProposalManager facilitates on-chain governance voting
- SoGoodDAOFactory deploys community-specific governance structures

This architecture maintains clear separation of concerns while ensuring secure cross-contract communication and modularity for future upgrades.