\*\*Synergy Network\*\*

\*\*Master Development Checklist\*\*

\*\*Phase 1: Planning & Foundation\*\*

\*\*1.1 Tasks\*\*

1.1.1 (req. external simulation logs) (loc. 1.2.2) Write PoSy simulation summary from logs

1.1.2 (loc. 1.2.1) Write Business Model content

1.1.3 (loc. 1.2.2) Finalize Tokenomics logic and charts

1.1.4 (loc. 1.2.3, 1.2.4) Define DAO Roles and Flow

1.1.5 (loc. 1.2.4) Build DAO Constitution ruleset

1.1.6 (loc. 1.2.5) Draft Legal Disclaimer

1.1.7 (loc. 1.2.6) Outline Regulatory Guide (GDPR, AML, SEC)

1.1.8 (loc. 1.2.7) Conduct Security Threat Analysis

1.1.9 (loc. 1.2.8) Write Emergency Rollback scenarios

1.1.10 (loc. 1.2.9, 1.2.10) Build Address Formatting model

1.1.11 (loc. 1.2.9) Implement UMA prototype (HD derivation + verifier)

1.1.12 (loc. 1.2.11) Define Multi-Signature Security Model

1.1.13 (loc. 1.2.12) Create Formal Protocol Specification

1.1.14 (loc. 1.2.13) Develop Security-First Development Framework

1.1.15 (loc. 1.2.14) Design Incentive Alignment Model

\*\*1.2 Deliverables\*\* 5447 6857 6166 6484

1.2.1 Business Model Document

1.2.2 Tokenomics Whitepaper

1.2.3 Governance Organizational Chart

1.2.4 DAO Constitution

1.2.5 Legal Disclaimer

1.2.6 Regulatory Compliance Guide

1.2.7 Security Risk Assessment Report

1.2.8 Emergency Governance Rollback Policy

1.2.9 UMA System Prototype

1.2.10 Synergy Naming System Architecture + CLI/GUI Integration Task Plan

1.2.11 Multi-Signature Wallet Specification

1.2.12 Formal Protocol Specification Document

1.2.13 Security-First Development Framework

1.2.14 Network Participant Incentive Alignment Model

\*\*Phase 2: Core Development\*\*

\*\*2.1 Tasks\*\*

2.1.1 (loc. 2.2.1) Write Network Architecture Specification

2.1.2 (req. 1.1.1) (loc. 2.2.2) Integrate PoSy contracts + validator clustering algorithm

2.1.3 (loc. 2.2.3) Document Ledger Format and State Logic

2.1.4 (loc. 2.2.4) Write Quantum-Safe Cryptography Explainer

2.1.5 (loc. 2.2.5, 2.3.2) Polish and confirm SYN Token contract

2.1.6 (loc. 2.2.6) Create ICO Plan and Vesting Tiers Table

2.1.7 (loc. 2.2.7) Finalize SDK Documentation (JS + Python)

2.1.8 (loc. 2.2.8) Build Wallet User Guide

2.1.9 (loc. 2.2.9, 2.3.18) Define Governance Parameter Adjustment Mechanisms

2.1.10 (loc. 2.2.10, 2.3.19) Implement Token Vesting Mechanisms

2.1.11 (loc. 2.2.11) Design Tokenomics Simulation Framework

2.1.12 (loc. 2.2.12) Develop Comprehensive Interoperability Blueprint

\*\*2.2 Deliverables\*\*

2.2.1 Network Architecture Specification (Overview + Layered Design)

2.2.1.1 (req. 2.1.1) Synergy Testnet Deployment Documentation

2.2.1.2 (req. 2.1.1) Synergy Mainnet Deployment Documentation

2.2.2 (req. 2.1.2) PoSy Consensus Algorithm (Spec + Contracts)

2.2.3 (req. 2.1.3) Ledger Data Model

2.2.4 (req. 2.1.4) Quantum-Safe Cryptography Integration Guide

2.2.5 (req. 2.1.5) SYN Token Smart Contract

2.2.6 (req. 2.1.6) ICO Strategy Document

2.2.7 (req. 2.1.7) Developer SDK Documentation

2.2.8 (req. 2.1.8) Union Wallet User Guide

2.2.9 (req. 2.1.9) Governance Parameter Contract Documentation

2.2.10 (req. 2.1.10) Token Vesting Contract Documentation

2.2.11 (req. 2.1.11) Tokenomics Simulation and Testing Reports

2.2.12 (req. 2.1.12) Comprehensive Interoperability Plan

\*\*2.3 Smart Contract Implementation\*\*

2.3.1 (req. 1.1.4, 1.1.5) (loc. 5.2.4) Governance Contract

2.3.2 (req. 2.1.5) (loc. 2.2.5) SYN Token Contract

2.3.3 (req. 2.1.6) (loc. 2.2.6) Presale Contract

2.3.4 (req. 2.1.12) (loc. 6.2.3) Universal Atomic Swap Contract

2.3.5 (req. 2.1.12) (loc. 6.2.2) Liquidity Pool Contract

2.3.6 (req. 2.1.3, 2.1.5) (loc. 5.2.3) Staking Contract

2.3.7 (req. 2.1.2) (loc. 2.2.2) PoSy Consensus Contract

2.3.8 (req. 1.1.10) (loc. 3.2.7) Synergy Naming System Contract

2.3.9 (req. 2.1.12) (loc. 5.2.5) Bridge/Relay Contract (for cross-chain Synergy ↔ ETH/SOL/BTC)

2.3.10 (req. 2.1.15) (loc. 6.2.4) Task Market Smart Contract (bounties, claims, dispute resolution)

2.3.11 (req. 2.1.5) (loc. 4.2.2) Faucet Contract (testnet token distribution, rate limiting)

2.3.12 (req. 1.1.4, 2.1.5) (loc. 5.2.4) DAO Treasury Contract (holds SYN, proposal-linked transfers)

2.3.13 (req. 1.1.15) (loc. 3.2.8) Identity/Reputation Contract (verifiable credentials, reputation scoring)

2.3.14 (req. 1.1.12) (loc. 1.2.11) Multi-Signature Wallet Contract (enhanced security for treasury and critical operations)

2.3.15 (req. 2.1.12) (loc. 3.2.9) Oracle Contract (data feeds, random number generation, interchain communication)

2.3.16 (req. 2.1.15) (loc. 6.2.10) Escrow Contract (conditional payments, milestone-based releases)

2.3.17 (req. 2.1.12) (loc. 6.2.11) NFT Marketplace Contract (digital asset creation, transfer, and royalties)

2.3.18 (req. 2.1.9) (loc. 2.2.9) Governance Parameter Contract (network parameter adjustment via governance)

2.3.19 (req. 2.1.10) (loc. 2.2.10) Vesting Contract (team, investor, and partner token release schedules)

2.3.20 (req. 2.1.12) (loc. 3.2.10) Privacy Layer Contract (confidential transactions, zero-knowledge proofs)

2.3.21 (req. 2.1.15) (loc. 5.2.7) Fee Distribution Contract (network fee allocation across stakeholders)

2.3.22 (req. 2.1.15, 2.1.2) (loc. 4.2.10) Validator Slashing Contract (penalty enforcement for protocol violations)

\*\*Phase 3: Network & Portal Infrastructure\*\*

\*\*3.1 Tasks\*\*

3.1.1 (req. 2.1.1, 2.1.2, 2.3.7) (loc. 3.2.1) Deploy Synergy Testnet (validators, endpoints, faucet)

3.1.2 (req. 3.1.1) (loc. 3.2.3) Build Synergy Testnet Explorer (UI + blockchain hooks)

3.1.3 (req. 3.1.2) (loc. 3.2.3) Build Synergy Mainnet Explorer (theme + data sources)

3.1.4 (req. 3.1.1) (loc. 3.2.4) Implement Network Selector Component

3.1.5 (req. 2.1.1) (loc. 3.2.2) Build Synergy Portal skeleton (navigation, content, layout)

3.1.6 (req. 2.3.11, 3.1.1) (loc. 3.2.1, 4.2.2) Implement Gas Station for testnet (wallet connect + faucet)

3.1.7 (req. 2.3.1, 3.1.5) (loc. 3.2.2) Build DAO Interface on Portal (proposals, voting)

3.1.8 (req. 2.3.3, 3.1.5) (loc. 3.2.2) Build ICO / Pre-Sale Interface (on-chain payments + vesting)

3.1.9 (req. 2.1.7) (loc. 3.2.5) Build CLI version of Synergy Utility Tool (wallet, name system, transactions)

3.1.10 (req. 3.2.6, 3.2.7) (loc. 3.2.6) Build GUI version of Synergy Utility Tool (wallet, name system, tokens)

3.1.11 (req. 3.1.9, 3.1.10) (loc. 3.2.5, 3.2.6) Implement cross-tool wallet/token/name sync

3.1.12 (req. 2.3.8, 1.1.10) (loc. 3.2.7) Build Synergy Naming System (register, resolve, query)

3.1.13 (req. 2.3.13) (loc. 3.2.8) Implement Identity & Reputation System

3.1.14 (req. 2.3.15) (loc. 3.2.9) Deploy Oracle Network Infrastructure

3.1.15 (req. 2.3.20) (loc. 3.2.10) Implement Privacy Layer Protocol

\*\*3.2 Deliverables\*\*

3.2.1 (req. 3.1.1, 3.1.6) Synergy Testnet Infrastructure (nodes, faucet, explorer, endpoints)

3.2.2 (req. 3.1.5, 3.1.7, 3.1.8) Synergy Portal (DAO, ICO, faucet, staking, documentation)

3.2.3 (req. 3.1.2, 3.1.3) Synergy Explorer (testnet + mainnet support)

3.2.4 (req. 3.1.4) Network Selector Component

3.2.5 (req. 3.1.9, 3.1.11) Synergy Utility Tool -- CLI

3.2.6 (req. 3.1.10, 3.1.11) Synergy Utility Tool -- GUI

3.2.7 (req. 3.1.12, 2.3.8) Synergy Naming System Smart Contract + UI

3.2.8 (req. 3.1.13, 2.3.13) Identity & Reputation System Documentation

3.2.9 (req. 3.1.14, 2.3.15) Oracle System Documentation and Integration Guide

3.2.10 (req. 3.1.15, 2.3.20) Privacy Layer Documentation

\*\*Phase 4: Testing & Validation\*\*

\*\*4.1 Tasks\*\*

4.1.1 (req. 3.1.1) (loc. 4.2.1) Write Testnet Deployment Guide

4.1.2 (req. 2.3.11) (loc. 4.2.2) Deploy and document Faucet Smart Contract

4.1.3 (req. 1.1.8, 3.1.1) (loc. 4.2.3) Gather Audit Logs and Security Reports

4.1.4 (req. 3.1.1) (loc. 4.2.4) Simulate and Document Sybil Attacks

4.1.5 (req. 3.1.1) (loc. 4.2.5) Benchmark Network with Stress Tests

4.1.6 (req. 2.3.1-2.3.22) (loc. 4.2.6) Test and Write Unit Tests for Smart Contracts

4.1.7 (req. 2.3.1, 3.1.7) (loc. 4.2.7) Simulate Voting Cycles + Governance Reports

4.1.8 (req. 3.1.5-3.1.15) (loc. 4.2.8) Collect UI/UX Testing Feedback

4.1.9 (req. 2.1.7) (loc. 4.2.9) Finalize API Reference

4.1.10 (req. 2.3.22) (loc. 4.2.10) Test Validator Slashing Scenarios

4.1.11 (req. 2.1.11) (loc. 4.2.11) Perform Tokenomics Stress Testing

\*\*4.2 Deliverables\*\*

4.2.1 (req. 4.1.1) Testnet Deployment Guide

4.2.2 (req. 4.1.2, 3.1.6, 2.3.11) Faucet Contract + Web UI

4.2.3 (req. 4.1.3) Security Audit Logs

4.2.4 (req. 4.1.4) Sybil Attack Simulation Report

4.2.5 (req. 4.1.5) Load Benchmark Reports

4.2.6 (req. 4.1.6) Smart Contract Unit Tests

4.2.7 (req. 4.1.7) Governance Voting Test Reports

4.2.8 (req. 4.1.8) UI/UX Feedback Reports

4.2.9 (req. 4.1.9) Finalized API Documentation

4.2.10 (req. 4.1.10, 2.3.22) Validator Slashing Contract Documentation

4.2.11 (req. 4.1.11) Tokenomics Stress Test Reports

\*\*Phase 5: Mainnet Launch & Adoption\*\*

\*\*5.1 Tasks\*\*

5.1.1 (req. 4.2.1-4.2.11) (loc. 5.2.1) Write Mainnet Launch Guide

5.1.2 (req. 2.3.2) (loc. 5.2.2) Draft Token Migration Instructions

5.1.3 (req. 2.3.6) (loc. 5.2.3) Summarize Validator & Staking Rewards

5.1.4 (req. 2.3.1, 2.3.12) (loc. 5.2.4) Finalize DAO Contract Review

5.1.5 (req. 2.3.9) (loc. 5.2.5) Merge Operator Instructions for Cross-Chain Bridges

5.1.6 (req. 3.2.1-3.2.10) (loc. 5.2.6) Compose Enterprise Integration Guide

5.1.7 (req. 2.3.21) (loc. 5.2.7) Design Fee Distribution Model

\*\*5.2 Deliverables\*\*

5.2.1 (req. 5.1.1, 3.1.1, 4.2.1) Mainnet Deployment Guide

5.2.2 (req. 5.1.2) Token Migration Documentation

5.2.3 (req. 5.1.3, 2.3.6) Staking Incentives Guide

5.2.4 (req. 5.1.4, 2.3.1, 2.3.12) Governance Smart Contracts

5.2.5 (req. 5.1.5, 2.3.9) Bridge Node Operator Manual

5.2.6 (req. 5.1.6) Enterprise Integration Guide

5.2.7 (req. 5.1.7, 2.3.21) Fee Distribution Contract Documentation

\*\*Phase 6: Ecosystem Growth\*\*

\*\*6.1 Tasks\*\*

6.1.1 (req. 5.2.1) (loc. 6.2.1) Draft uDEX Documentation

6.1.2 (req. 2.3.5) (loc. 6.2.2) Finalize Liquidity Pool Deployment Scripts

6.1.3 (req. 2.3.4) (loc. 6.2.3) Merge Cross-Chain Swap Logic

6.1.4 (req. 2.3.10) (loc. 6.2.4) Document Task Market Deployment

6.1.5 (req. 5.2.1-5.2.7) (loc. 6.2.5) Write Growth Strategy for Devs & Users

6.1.6 (req. 5.2.4) (loc. 6.2.6) Review DAO Grant Allocation Workflows

6.1.7 (req. 4.2.3) (loc. 6.2.7) Design Continuous Audit Flow

6.1.8 (req. 5.2.6) (loc. 6.2.8) Write Use Case Report (from field data)

6.1.9 (req. 5.2.1) (loc. 6.2.9) Create Five-Year Network Upgrade Plan

6.1.10 (req. 2.3.16) (loc. 6.2.10) Implement Conditional Payment Systems

6.1.11 (req. 2.3.17) (loc. 6.2.11) Build NFT Creation and Trading Systems

\*\*6.2 Deliverables\*\*

6.2.1 (req. 6.1.1) uDEX Smart Contract Documentation

6.2.2 (req. 6.1.2, 2.3.5) Liquidity Pool Launch Guide

6.2.3 (req. 6.1.3, 2.3.4) Cross-Chain Swap System Specification

6.2.4 (req. 6.1.4, 2.3.10) Task Market Smart Contract Documentation

6.2.5 (req. 6.1.5) Community Growth Strategy Document

6.2.6 (req. 6.1.6) DAO Grant Allocation Framework

6.2.7 (req. 6.1.7) Continuous Audit Pipeline Plan

6.2.8 (req. 6.1.8) Enterprise Use Case Reports

6.2.9 (req. 6.1.9) Long-Term Upgrade Roadmap

6.2.10 (req. 6.1.10, 2.3.16) Escrow System Documentation

6.2.11 (req. 6.1.11, 2.3.17) NFT Marketplace Documentation