







Archiva

TEAM NAME: **Genesis**

DOMAIN: **Blockchain & Decentralized Solution**

PROBLEM STATEMENT:

Smart Contract Lifecycle Management on Aptos

-  **No Efficient Archival** – Unused smart contracts remain on-chain, consuming storage.
-  **Lack of Lifecycle Management** – No built-in tools for modifying, tracking, or archiving contracts.
-  **Cumbersome Deployment** – Requires multiple terminal commands, making the process inefficient.
-  **Storage Constraints on Aptos** – Move's resource-oriented model makes contract deletion difficult.
-  **Immutability vs. Scalability** – Removing/modifying contracts conflicts with blockchain finality & verifiability.
-  **No Unified Developer Tooling** – Developers lack a single platform to manage smart contracts seamlessly.



Why this important?

- ✓ **Reduces blockchain bloat** by optimizing storage usage.
- ✓ **Improves developer experience** with easy contract deployment & management.
- ✓ **Enhances security & verifiability** while maintaining Aptos's core principles.
- ✓ **Ensures long-term scalability** for dApps by enabling structured contract management.

****Aptos lacks a comprehensive smart contract management system—Archiva fills this gap!**

Archiva: Revolutionizing Smart Contract Management

- ❑ A decentralized smart contract lifecycle management platform built on Aptos.
- ❑ Enables developers to archive, manage, and retrieve smart contracts seamlessly.
- ❑ Uses zero-knowledge proofs (zk-SNARKs) to ensure verifiable archival without breaking immutability.
- ❑ Balances on-chain and off-chain storage, reducing storage overhead and gas costs.
- ❑ Optimized for Aptos, Polygon zkEVM, and Ethereum ecosystems.

How it works?

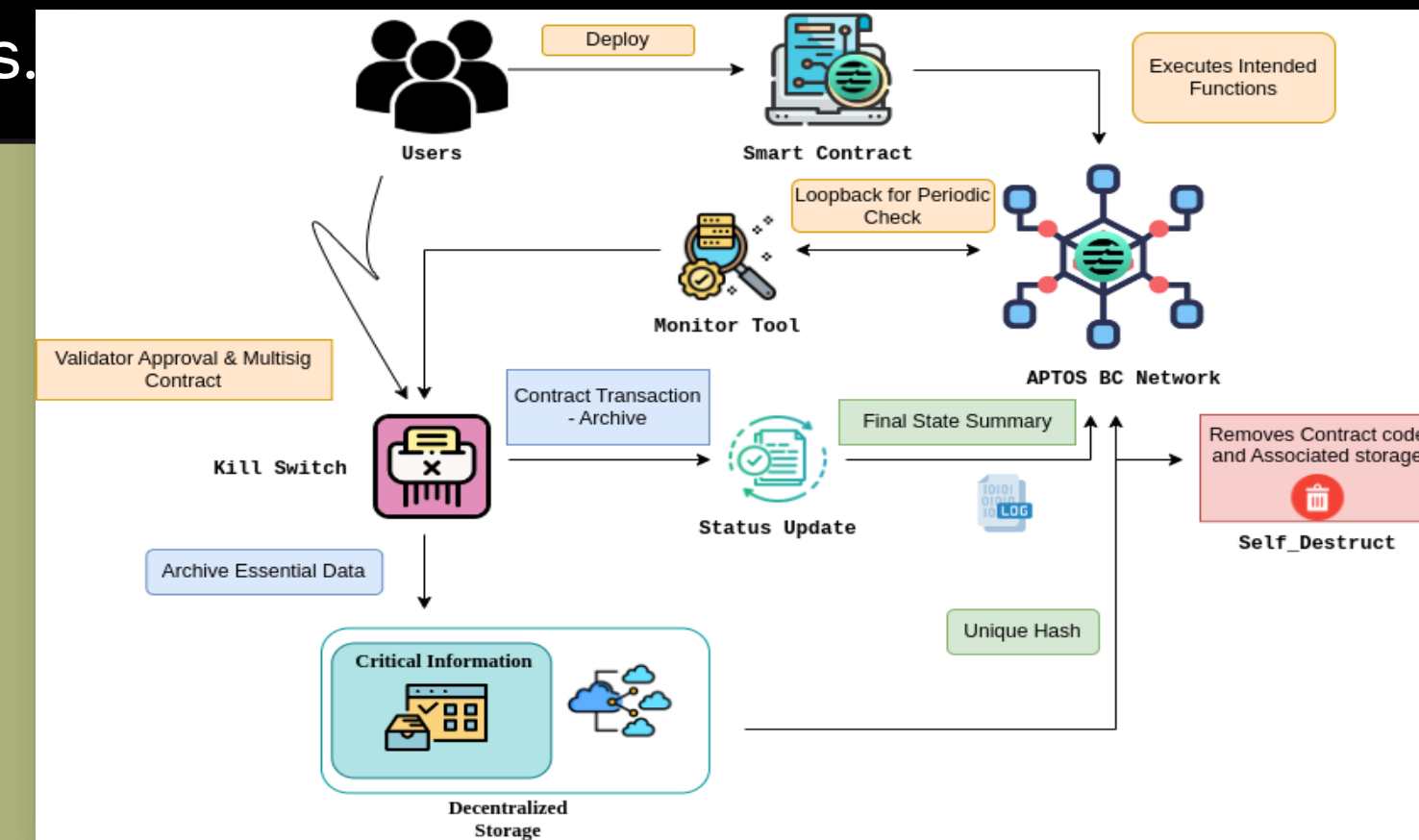
Smart Contract Archival – Uses zk-SNARKs to cryptographically seal and compress unused contracts.

Efficient Storage Management – Moves archived contracts off-chain while retaining proof on Aptos.

Selective Pruning & Retrieval – Allows contract validation without full on-chain storage.

One-Click Deployment – Deploy Aptos Move contracts without running multiple terminal commands.

Interoperability – Supports Aptos SDK, MetaMask-like wallets, and Aptos Move for seamless contract management.





- ✓ **First-of-its-kind Smart Contract Archival on Aptos** → No existing tool enables contract storage optimization while preserving immutability.
- ✓ **zk-SNARK-powered Contract Verification** → Allows contract retrieval & validation without keeping full data on-chain.
- ✓ **Decentralized & Permissionless Management** → No central authority—users control their own contract lifecycle.
- ✓ **One-Click Smart Contract Deployment** → Eliminates complex terminal commands for Aptos Move developers.
- ✓ **Built-in Move Code Editor** → First-ever browser-based editor for Aptos smart contracts, improving developer productivity.
- ✓ **Seamless Aptos Integration** → Works natively with Aptos wallets (Marian, Petra) for smooth interactions.
- ✓ **Interoperability Across Chains** → Supports Aptos Move & future compatibility with Polygon zkEVM, Ethereum L2s.
- ✓ **Storage Optimization & Blockchain Efficiency** → Archived contracts remain verifiable via Merkle Proofs on IPFS/Arweave, reducing blockchain bloat.

Key Partners

Aptos
Polygon zkEVM
IPFS/Arweave
Devfolio
ETHIndia



Key Activities

Smart contract archival & verification
zk-SNARK-powered proof generation
Move code editor & one-click deployment
API development & maintenance
Developer community engagement



Value Propositions

Reduces blockchain storage costs
Ensures contract immutability & verifiability
First all-in-one smart contract archival & lifecycle management tool
Integrated zk-SNARK verification for contract integrity
Built-in Move code editor for seamless development



Channels

ETHIndia, Polygon Devs
Aptos ecosystem, Devfolio
Web3 developer communities
Hackathons & online workshops



Customer Relationships

Developer support forums
Web3 hackathons & grants
Onboarding assistance for enterprises
Community-driven feature requests



Customer Segments

Blockchain developers & dApp creators
Enterprises managing high-volume smart contracts
DeFi & NFT projects
Web3 startups adopting Aptos



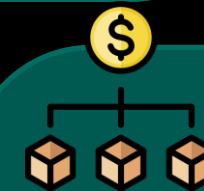
Key Resources

Aptos Move, zk-SNARKs
IPFS, Arweave
ReactJS, FastAPI
Developer grants & community funding



Cost Structure

API maintenance & infrastructure
zk-SNARK validation costs
Smart contract indexing & archival expenses
Developer grants & incentives



Revenue Streams

Freemium API model (basic archival free)

Premium enterprise services (custom archiving, zk-proof verification)

SaaS subscription model (advanced analytics, team collaboration)

Enterprise API licensing for Web3 platforms



Blockchain & Smart Contracts

APTOS



Aptos Move, Aptos SDK, zk-SNARKs (Groth16/Plonk), IPFS/Arweave

Backend & Storage



FastAPI, Python, Aptos REST API, Firestore, IPFS-based archival

Frontend & UI



React, Next.js, Tailwind CSS, MetaMask-like Extension (Aptos-SDK-based)

Security & Validation



Zero-Knowledge Proofs (ZKPs), State Commitments, Cryptographic Hashing

Archival & Verification Page

ARCHIVAL & VERIFICATION CENTER

Manage your smart contract archival process and verify contract integrity with zk-SNARK technology.

Smart Contract Archival

Archive eligible contracts to reduce storage costs

Eligible (3) Archived (5) Ineligible (2)

TOKENSWAP CONTRACT Eligible 0x1a2b...3c4d Last active: 45 days ago	Storage: 2.4 MB Est. savings: 0.12 API/month
TOKENSWAP CONTRACT Eligible 0x1a2b...3c4d Last active: 45 days ago	Storage: 2.4 MB Est. savings: 0.12 API/month
TOKENSWAP CONTRACT Eligible 0x1a2b...3c4d Last active: 45 days ago	Storage: 2.4 MB Est. savings: 0.12 API/month

Verification Portal

Verify contract integrity with zk-SNARKs

ZK-SNARK SYSTEM STATUS

Proof Generation Operational
 Verification System Operational
 Merkle Tree Integrity Verified

[Verify Contract](#)

Storage Impact

Visualize your storage optimization

Total Contracts	10
Archived Contracts	5 (50%)
Storage Saved	15.3 MB

Contract Management

CONTRACT MANAGEMENT

Search contracts...

Status Network

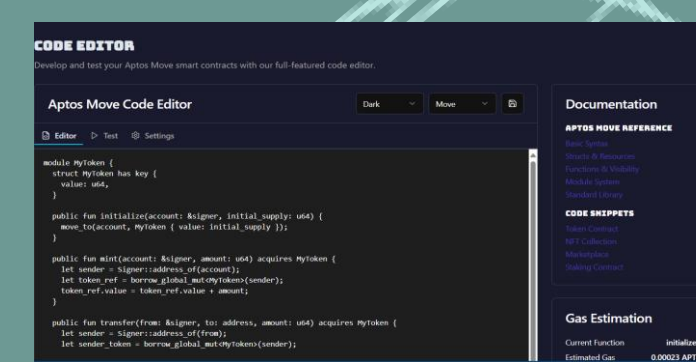
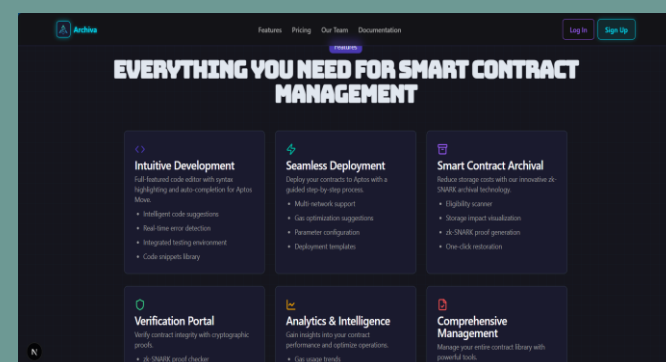
Name	Address	Deployment Date	Network	Status	Last Interaction	Storage Size
TokenSwap	0x1a2b...9s0t	2023-10-15	Aptos Mainnet	Active	2023-11-01	1.2 MB
NFTMarketplace	0x2b3c...0t1a	2023-09-22	Aptos Mainnet	Active	2023-10-30	2.5 MB
LendingProtocol	0x3c4d...1a2b	2023-08-05	Aptos Testnet	Archived	2023-09-15	1.8 MB
StakingRewards	0x4d5e...2b3c	2023-11-01	Aptos Mainnet	Active	2023-11-02	0.9 MB
GovernanceDAO	0x5e6f...3c4d	2023-07-12	Aptos Mainnet	Deprecated	2023-08-20	3.1 MB

5 contracts

WIREFRAME

Landing Page

Code Editor (AI powered)



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