About Self-Defi

Self-Defi provides secure, self-custody infrastructure. Our mission is to empower individuals and organizations with the tools for sovereign wealth architecture.

We provide the underlying technology—not financial advice, investment services, or fund management. With Graduation Vaults, your school, your parents, and your designated trustee always remain in full control.

GRADUATION VAULT SYSTEM — EXTENDED WHITEPAPER

A Detailed, Institutional-Grade Framework for Decentralized Student Wealth Architecture

1. INTRODUCTION

The Graduation Vault System (GVS) is a decentralized, donation-based architecture designed to give each student a protected, time-locked financial foundation at graduation. It was created in response to three realities: - Traditional school funding and scholarship models lack transparency for donors and families. - Custodial financial products for minors introduce regulatory, counterparty, and operational risks. - Many microschools and innovative education models operate without institutional endowments or long-term capital tools. GVS addresses these gaps by combining multi-signature smart accounts, strict timelocks, and role-based governance into a system that is auditable, non-custodial, and purpose-built for long-term student benefit. The system is intentionally conservative: funds are not invested, not pooled, and not exposed to yield schemes. Instead, each vault functions as a protected container for donations, locked to a graduation event and governed by pre-defined, transparent rules.

2. PROBLEM STATEMENT AND CONTEXT

Microschools, hybrid academies, and community-based programs are emerging as serious alternatives to traditional K–12 institutions. However, their financial infrastructure has not kept pace. Donations and sponsorships typically flow into a general school account, where tracking, earmarking, and follow-through depend on manual processes and institutional trust. This creates several issues: - Donors lack a clear, verifiable line of sight from contribution to impact. - Families cannot easily distinguish between funds meant for general school use and funds intended for a specific student. - Schools must shoulder administrative burden to track and report on restricted gifts. - Students rarely experience a structured, visible build-up of resources tied to graduation. At the same time, regulatory and practical constraints make it difficult for schools to operate investment products or custodial accounts on behalf of students. GVS is designed as a non-custodial, non-investment, donation-only system that still delivers the benefits of long-term financial preparation and radical transparency.

3. DESIGN GOALS

GVS is built around a small set of non-negotiable design goals: - Non-custodial by design: Self-Defi and SD Advisory Group never hold private keys, never initiate transactions, and cannot access funds. - Student-focused: Each vault corresponds to a single student with a specific graduation target. - Governance first: Withdrawals require multi-signature approval, with the Parent or Guardian as a mandatory signer. - Radical transparency: All transactions are on-chain, permanently recorded, and independently verifiable. - Simplicity for end users: Parents, donors, and staff interact through comprehensible dashboards and straightforward flows. - Legal conservatism: No yield generation, no investment representations, and no blending of roles between advisor and custodian. - Replaceable roles: School- and community-linked signers must be replaceable without compromising the integrity of the vault.

4. GOVERNANCE MODEL: 3-OF-4 MULTISIGNATURE STRUCTURE

The governance model for a Graduation Vault is based on a 3-of-4 multi-signature structure implemented via a SAFE smart account. The four signer roles are: - Parent or Guardian (mandatory signer) - School Representative - Teacher, Staff Member, or Counselor - Independent Trustee or Community Oversight Member Any graduation withdrawal from the vault requires: - The Parent or Guardian signature, and - Two of the three remaining oversight signers. This creates a strong form of shared governance. No single entity, including the school, can unilaterally access the funds. The Parent or Guardian remains structurally central to all major decisions, while the school and community oversight roles ensure the vault is used in alignment with the program's purpose and documented hardship criteria.

5. TECHNOLOGY AND ARCHITECTURE

Under the hood, each Graduation Vault consists of three primary layers: - Control Layer: A SAFE smart account configured with a 3-of-4 multi-signature policy. The SAFE enforces signer thresholds and holds the vault's assets. - Policy Layer: Timelock logic and any additional guards that ensure withdrawals cannot occur before the graduation unlock date, except in narrowly defined emergency scenarios. - Presentation Layer: Dashboards and interfaces for students, parents, staff, trustees, and donors. These surfaces do not hold keys or execute transactions themselves; they simply visualize on-chain data and assist with transaction construction. The combination of these layers produces a system that is both operationally usable and structurally secure.

6. ASSET TYPES AND SUPPORTED NETWORKS

GVS is designed to be chain- and asset-agnostic within sensible constraints. In practice, institutional deployments are expected to favor: - Dollar-pegged stablecoins such as USDC for predictable value representation. - Networks with mature tooling, strong security assumptions, and reliable SAFE support. Bitcoin and other assets can be integrated through separate vault designs or bridge infrastructure, but the default implementation assumes stablecoins and a suitable smart-contract network. All choices should prioritize stability, security, and ease of compliance over yield or speculative upside.

7. VAULT LIFECYCLE: FROM CREATION TO GRADUATION

The typical lifecycle of a Graduation Vault follows these stages: - Vault Creation: The school (or implementation partner) deploys a new SAFE instance and records the student's identity, graduation year, and signer set. - Onboarding and Education: The student and Parent or Guardian are introduced to the vault concept, provided with dashboard access, and shown how to view donations and progress. - Funding Phase: Donors, family members, local businesses, and other supporters contribute directly to the vault address. Contributions accumulate over multiple years. - Monitoring and Governance: Signers periodically review the vault, confirm that no unauthorized change has occurred, and maintain up-to-date contact and role information. - Graduation Unlock: Once the student meets graduation criteria (as defined by the program), a graduation withdrawal proposal is created. Parent approval plus two oversight approvals are required to release funds. - Post-Graduation: Funds are disbursed to a destination account controlled by the student or jointly controlled with the Parent or Guardian, depending on the program design. The original vault can then be archived or

repurposed according to policy.

8. EMERGENCY ACCESS AND HARDSHIP POLICY

The default expectation is that vaults remain locked until graduation. However, real-world circumstances sometimes require compassionate exceptions. Emergency withdrawals are governed by: - A clearly documented hardship policy established by the school and community partners. - A requirement for full signer consensus: Parent or Guardian, School Representative, Teacher/Staff or Counselor, and Independent Trustee must all approve. - Detailed, written justification and minimal-withdrawal logic, ensuring that only the necessary portion of funds is unlocked. This approach balances compassion with the core commitment to long-term asset protection.

9. TRANSPARENCY AND REPORTING

GVS is built to provide continuous, automated transparency rather than episodic, manual reporting. This is achieved by: - Exposing read-only dashboards where donors, families, and administrators can view contributions and balances. - Leveraging the public ledger as the single source of truth. - Allowing third parties such as auditors, foundations, or district officials to independently verify flows using on-chain explorers. Schools can complement this with narrative reporting, but do not need to manually reconcile line items for each donor. The chain becomes the ledger.

10. STAKEHOLDER ROLES AND RESPONSIBILITIES

The system clearly delineates responsibilities: - Students: Maintain awareness of their vault, use dashboard access responsibly, and treat the eventual withdrawal as a serious opportunity. - Parents or Guardians: Serve as the mandatory signer for graduation releases, stay informed about donations, and participate in any hardship evaluations. - School Representatives: Provide institutional context, verify enrollment and graduation status, and uphold governance process integrity. - Teachers, Staff, or Counselors: Bring a student-centered perspective to hardship decisions and graduation readiness. - Independent Trustees or Community Oversight Members: Provide neutral oversight, protecting against institutional overreach or conflicts of interest. - Donors and Sponsors: Contribute funds, review on-chain activity, and engage with the school community as desired. - Self-Defi and SD Advisory Group: Provide infrastructure, education, and implementation support without ever holding keys or assigning themselves signing roles.

11. LEGAL AND COMPLIANCE CONSIDERATIONS

GVS is deliberately framed as a donation-based, non-investment system. Key compliance characteristics include: - No pooling of student vaults for investment purposes. - No representation of expected financial return. - No custody, discretionary management, or advisory role over the funds. - Clear documentation of roles, thresholds, and emergency policies. Schools and sponsoring organizations should still consult local counsel, particularly when integrating GVS with existing scholarship programs, nonprofit structures, or tax-advantaged donation frameworks.

12. RISK MANAGEMENT FRAMEWORK

A robust risk posture is central to institutional adoption. GVS addresses risk in several dimensions: - Technical Risk: Mitigated through the use of battle-tested smart account frameworks and conservative network selection. - Governance Risk: Reduced via multi-signature thresholds, signer distribution, and signer replacement procedures. - Operational Risk: Limited by separating key management from dashboards and ensuring that staff are trained in incident response. - Reputational Risk: Addressed by full transparency and clear messaging that Self-Defi never has access to funds. These controls are not absolute guarantees, but collectively represent a significantly stronger posture than traditional, opaque donation flows.

13. IMPLEMENTATION PHASES FOR SCHOOLS

Schools adopting GVS can follow a phased rollout: - Phase 1: Pilot with a small cohort of students to validate processes, user education, and technology integration. - Phase 2: Expand to a full grade level or program once the governance rhythm is established. - Phase 3: Integrate the Graduation Vault narrative into long-term planning, financial literacy curricula, and donor communication. - Phase 4: Optionally pair student vaults with a School Innovation Vault, giving donors both individual and institutional pathways for support. At each phase, changes should be documented and communicated clearly to stakeholders.

14. EXAMPLE USE CASES

GVS can support a variety of real-world scenarios: - A microschool launching a freshman cohort where each student receives a vault tied to their expected graduation year. - A

community foundation sponsoring a group of first-generation college-bound students and requiring strong governance around early access. - A local business network adopting a school and contributing annually to both individual vaults and a separate School Innovation Vault. These scenarios illustrate how GVS can operate as a backbone for long-term, student-focused wealth preparation.

15. FUTURE EXTENSIONS AND ROADMAP

While the current design focuses on conservative, non-investment vaults, the broader roadmap may include: - Optional integrations with financial literacy modules. - Additional dashboards for districts, foundations, or umbrella organizations. - Enhanced analytics for tracking aggregate impact over multiple graduating classes. Any future extension will adhere to the core principles of non-custody, transparency, and student-first architecture.

16. CONCLUSION

The Graduation Vault System is an institutional-grade framework for building transparent, secure, and student-centered financial pathways. By combining decentralized infrastructure with strict governance and time-locked access, GVS offers schools, donors, and families a structure they can trust. It is not a speculative product or a yield engine. It is a disciplined, purpose-built tool for ensuring that when students reach graduation, they do so with a visible, verifiable financial foundation built over time by the community that believes in them.