**Executive Summary** 

UnifyID is a next-generation Identity and Access Management SaaS platform that delivers adaptive,

passwordless authentication, Al-powered risk scoring, blockchain-based audit trails, and a developer-friendly

API gateway. This document provides a complete technical and strategic roadmap for the evolution of

UnifyID as a secure, scalable, and intelligent identity layer.

**Vision & Objectives** 

- Passwordless authentication with adaptive MFA.

- Al/ML-powered behavioral profiling and threat detection.

- Immutable compliance audit trail using blockchain.

- Real-time user activity tracking and audit logs.

- PWA with intuitive admin and user interfaces.

- SaaS Pricing: 3-month free trial, \$3/user/month.

**Architecture Overview** 

Frontend: Next.js (React 18, TypeScript)

Backend: Laravel 10 + Sanctum/Passport

Microservices: FastAPI (Risk Engine), Node.js (Real-time Tracker)

Storage: PostgreSQL (multi-tenant), MongoDB (logs), Redis

Streaming: Kafka or RabbitMQ

Blockchain: Hyperledger Indy, IPFS, Polygon

DevOps: Kubernetes, Terraform, GitHub Actions, Vault

Page 1

- 1. Authentication Engine: WebAuthn, Adaptive MFA, OAuth2
- 2. Risk Engine: Anomaly detection with ML, SHAP explainability
- Blockchain Audit: DID Registry, IPFS anchoring, Merkle proof API
- 4. Admin Dashboard: Activity tracker, Role-based access, Consent center
- 5. API Gateway: Rate limiting, API keys, OpenAPI + SDKs

- Storybook-managed component library
- PWA capabilities: push notifications, offline mode
- WCAG 2.1 accessibility compliance
- Performance optimized (Lighthouse >= 95)

Phase 1 (1-3 mo): Auth engine, WebAuthn, SPA JWTs

Phase 2 (4-5 mo): Log system, real-time tracker

Phase 3 (6-7 mo): ML-powered Risk Engine

Phase 4 (8-9 mo): Blockchain audit infrastructure

Phase 5 (10-11 mo): PWA + Admin Dashboard polish

Phase 6 (12 mo): Beta client feedback -> GA (Aug 15)