

# AI-First Engineering Transformation

## Case Study: Telepathy.ai VP of Engineering Role

⚠ **Warning: Small sample size relative to other case studies**

## Executive Summary

Led comprehensive AI-first transformation of 70-engineer organization, evolving from sporadic AI adoption to systematic AI-native culture in 12 months. Delivered \$500K annual savings, 33% infrastructure cost reduction, 40% feature delivery acceleration, and 60% engineer AI adoption while establishing governance frameworks and cost optimization strategies.

## Strategic Challenge

**Organizational Readiness Gap:** Engineering teams lacked systematic AI strategy, resulting in 1-month deployment cycles and 60% time spent on repetitive manual tasks despite available AI capabilities. Engineering team was undergoing a series of retrenchments due to company's degrading financial posture.

**Resource Reduction:** Workforce size reduced, incrementally, from 70 engineers to 12, creating a clear and necessary opportunity to change the team's mode of operation.

## Transformation Approach

### Phase 1: AI as Micro-Tasker (Cultural Foundation)

- **Culture Building:** Launched organization-wide AI adoption initiative via #AI-First Slack channel with 50% engineer participation
- **Security Leadership:** Personally developed and open-sourced Go-based secrets scanner ([github.com/bordenet/secrets-in-source](https://github.com/bordenet/secrets-in-source))
  - Achieved 100x performance improvement (hours to 64 seconds) through strategic engineer pairing
  - Deployed across 100+ repositories for comprehensive vulnerability detection
  - Detected embedded secrets in source code, Terraform, Helm, and Docker files
- **Quick Wins:** Automated PR descriptions, commit messages, and documentation workflows

### Phase 2: AI as Companion (Development Integration)

- **Workflow Enhancement:** Deployed GitHub Copilot, Claude, and OpenAI across all engineering teams
- **Quality Acceleration:** AI-generated tests reduced creation time 60%; first-pass AI reviews caught 40% of issues pre-human review
- **Product Gap Solution:** Built AI-powered PRD generator ([github.com/bordenet/product-requirements-assistant](https://github.com/bordenet/product-requirements-assistant))
  - Enabled engineering-driven product development during PM absence
  - Generated six production-grade PRDs using multi-pass Claude/Gemini workflow

## Strategic Decision

**Cultural Leadership:** Fostered learning culture through active Slack engagement (50% engineer participation), internal AI champions, and systematic best practice documentation.

## Measurable Impact

- **Development Velocity:** 40% reduction in feature time-to-market
- **AI Adoption:** 60% daily AI tool usage (from 15% baseline)
- **Operational Overhead:** 60% reduction in repetitive task time across engineering teams
- **Engineering Culture:** Transformed mindset from "AI-curious" to "AI-native" across organization

## Leadership Insights

AI transformation requires developer-first approach—engineers must experience immediate personal productivity gains to drive adoption at scale.

## Organizational Legacy

Established reusable AI-first engineering framework that transforms problem-solving approach from manual-default to AI-augmented across all technical decisions. Demonstrated that AI transformation enhances rather than compromises security, cost management, and quality when implemented with systematic leadership and governance.