Sample deliverable: Engineering strategy & staffing

Engineering assessment and 90-day plan

Quillstack. A B2B software company with 12 engineers, after its Series A.

Prepared by Shipwright Labs, October 2026

Sample deliverable prepared for a fictional client. Names, figures, and findings are illustrative.

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1 Summary

Quillstack sells scheduling and dispatch software to field service companies. It closed its Series A this spring, has 12 engineers, and plans to double its customer count in the next 18 months. The CEO asked three questions: can the team ship faster without breaking things, who should be hired next, and what would an investor's technical due diligence find?

Over three weeks we reviewed the code, the delivery pipeline, and the production setup, and we interviewed the CTO, all 12 engineers, and the head of product.

1 to 10
Releases a week, today to target

9 to 2 days
Lead time from merge to production

2
Key-person risks

3
Recommended hires

2 Current state

Current-state findings

Area	Finding	Severity	Recommendation
Architecture	One application and one database serve every customer; the scheduling engine is tightly coupled to billing	Medium	Put billing behind an internal interface before the billing migration
Delivery	Releases go out once a week in a 4-hour manual window; changes wait 9 days on average from merge to production	High	Automate the deployment pipeline and release behind feature flags, daily at first
Reliability	No on-call rotation or alerting on key flows; customers found all 3 outages last quarter before the team did	High	Alert on the five most-used flows and start a weekly on-call rotation
Security	7 engineers share one production database account; internal tools have no single sign-on	High	Individual access with audit logging; single sign-on for every internal tool
Team	One engineer holds all infrastructure knowledge; another is the only person who understands billing	High	Pair and document both areas in the first 30 days; hire to remove both single points of failure

3 Team and hiring

Team today and at day 90

Structure	Today	Day 90
Teams	One team of 12, all reporting to the CTO	Two product teams of 5 and a platform team of 2, plus the three hires: 15 people in engineering
Management	The CTO manages 12 engineers directly	An engineering manager leads the product teams; the CTO owns architecture and hiring
Releases	Weekly, run by one engineer	About 10 a week, by any engineer, through the pipeline
On call	Informal: whoever notices	Weekly rotation across all 12 engineers, each trained before a first shift

Hiring plan

Role	When	Why
Engineering manager	Search starts in week 1; hired by day 60	The CTO cannot manage 12 people and set architecture at the same time
Senior platform engineer	Search starts in week 1; hired by day 75	Removes the infrastructure key-person risk and owns the deployment pipeline
Senior backend engineer, billing	Search starts by day 45; hired by day 90	Leads the billing migration and removes the second key-person risk

Interview loop: senior platform engineer

Stage	Length	What it tests
Recruiter screen	30 min	Motivation, logistics, and compensation fit
Technical conversation	60 min	Systems they have run in production, and what broke
Practical exercise	90 min, paired	Fix a failing deployment pipeline in a sample repository
Incident review	45 min	A real outage they handled and what they changed afterward
Team and CTO	45 min	Collaboration, documentation habits, and how they teach others

4 Build versus buy

Decision	Recommendation	Reasoning
Authentication and single sign-on	Buy a managed identity service	Enterprise prospects are asking for single sign-on. Building and securing it in-house would tie up a quarter of the team for months, and it is not what customers pay Quillstack for.
Billing	Buy a subscription billing platform and retire the custom billing code	The custom code is the second key-person risk, and usage-based pricing is on the roadmap. A billing platform handles invoicing, tax, and failed payments out of the box.
Internal analytics	Buy a managed data warehouse and reporting tool; build only the data models	Product and finance need the same numbers. Building dashboards inside the app slows product work, but the data models are specific to Quillstack and worth owning.

5 90-day plan

Days	Steps	Owner	Outcome
Days 1 to 30	Document and pair on infrastructure and billing; individual production access with audit logging; start the engineering manager and platform engineer searches; alerting on the five most-used flows	CTO and the two key engineers	Both key-person areas documented and covered by a second engineer; the shared database account removed
Days 31 to 60	Automated deployment pipeline with a license scan, and feature flags; daily releases; on-call rotation starts; first backup restore test; identity service selected; billing engineer search starts	CTO and the infrastructure engineer	Daily releases; lead time under 4 days; engineering manager hired
Days 61 to 90	Split into two product teams; single sign-on for internal tools through the company's workspace accounts; customer single sign-on live on the new identity service; billing platform selected and migration planned; SOC 2 Type I readiness review starts; platform engineer starts and billing engineer hired	Engineering manager and CTO	10 releases a week; lead time about 2 days; new teams in place

How we'll know it worked

We track four numbers weekly from day 1: releases per week, lead time from merge to production, the share of releases that cause an incident, and time to restore service. The 90-day targets are 10 releases a week and a 2-day lead time, with no rise in the share of releases that cause an incident.

6 Due diligence readiness

Risk an investor would flag	Status today	Fix
No SOC 2 report	Not started; two enterprise prospects have asked for one	Start a SOC 2 Type I readiness review in days 61 to 90; target a Type II report within 12 months of day 1
Key-person dependencies	2 engineers each hold critical knowledge alone	Documentation, pairing, and two hires in the 90-day plan
Shared production credentials	7 engineers share one database account	Individual access with audit logging in days 1 to 30
Untested disaster recovery	Backups run nightly but have never been restored	A quarterly restore test, starting in days 31 to 60
Open-source licenses	Never reviewed	An automated license scan in the pipeline, with flagged packages reviewed
IP assignment	2 former contractors never signed IP assignments	Counsel requests confirmatory assignments from both before the next round; if either declines, we identify the code they wrote so counsel can assess it