

Lumen Ops

An AI operations platform for mid-market field-service businesses

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Why we exist, pillars, north-star metric

2 · Product Lifecycle

Stage gates from discovery to renewal

3 · Platform Thinking

Architecture, ecosystem, data flywheel

4 · Go-To-Market

ICP, positioning, pricing, launch

Harshal Borole · Product Manager · October 2026

A hypothetical product. All figures and targets are illustrative planning assumptions.

Executive summary

Lumen Ops becomes the AI operating system for mid-market field-service companies: it turns every job, technician and customer interaction into a decision the business can automate. This document sets out the strategy across four lenses that a product leader must hold together: where we are going (Vision), how the product evolves over time (Lifecycle), how it compounds into an ecosystem (Platform), and how it wins customers (Go-To-Market).

The product in one paragraph. Lumen Ops is a fictional, AI-native platform for home and commercial service businesses with 20 to 500 technicians: HVAC, plumbing, electrical, pest control, appliance repair. It replaces the patchwork of a legacy field-service tool, spreadsheets, a phone system and a dispatcher's memory with one system that schedules, routes, quotes, follows up and learns from every completed job.

The strategic bet. Field-service software today records work after it happens. The next generation will decide what work should happen: which technician, which route, which upsell, which customer is about to churn. The company that owns the job-level data and the decision layer on top of it will own the category.

Lens	Core question	Our answer in one line
Product Vision	Why do we exist and where are we going?	Every service business runs at the efficiency of the best-run one in its market
Product Lifecycle	How does the product evolve and when do we change course?	Wedge with AI dispatch, expand into the full workflow, renew through autonomy
Platform Thinking	How does value compound beyond our own features?	Open the job graph to partners, suppliers and developers; every job makes the models better
Go-To-Market	Who buys first, why, and how do we reach them?	Operations leaders at 20 to 150 technician firms, sold on measurable revenue per technician

How to read this document. Each section stands on its own and ends with the metrics that prove it is working. All company names, figures and targets are illustrative planning assumptions for a hypothetical product, chosen to show how a product leader reasons, not reported results.

1. Product Vision

Vision statement: Every service business runs at the efficiency of the best-run one in its market.

Mission: Give operations teams an AI co-pilot that turns each job into a better decision about the next one.

1.1 Market context

Mid-market field-service firms sit in a gap. Enterprise tools are too heavy and expensive to implement; SMB tools break once a company passes about 20 technicians. Most firms in this band run a legacy scheduling tool, plus spreadsheets, plus tribal knowledge held by one or two dispatchers.

Three shifts make this the right moment:

- **Labor scarcity.** Skilled technicians are the binding constraint on growth, so every wasted drive hour is lost revenue, not just cost.
- **AI that can reason over operations.** Models can now read job notes, photos and call transcripts and turn them into structured decisions.
- **Customer expectations set by consumer apps.** Homeowners expect live arrival tracking, instant quotes and self-service rebooking.

1.2 Problem we solve

The core problem is not missing data; it is that decisions are made too late and by too few people.

Pain	Who feels it	Cost to the business
Dispatch is manual and depends on one or two experts	Dispatcher, Ops Manager	Idle technicians, overtime, missed windows
Technicians drive more than they work	Technician, Owner	Fewer jobs per day, fuel and fatigue
Upsell and maintenance revenue is left on the table	Owner, Sales	Lower revenue per job, weak recurring revenue
Customers churn silently after a bad visit	Customer Service	Lost lifetime value, poor reviews
Owners cannot see margin by job, tech or region	Owner, Finance	Pricing and hiring decisions made on gut feel

1.3 Target customers and personas

Persona	Role in the buy	Job to be done	What success looks like
Dana, VP Operations	Economic buyer and champion	Grow revenue without growing headcount at the same rate	More completed jobs per technician per week

Persona	Role in the buy	Job to be done	What success looks like
Marco, Lead Dispatcher	Daily power user	Fill the board and handle disruptions without firefighting	A schedule that repairs itself when a job runs long
Priya, Field Technician	End user in the field	Get to the right job with the right parts and context	Fewer return trips, less paperwork
Sam, Owner or CEO	Final approver	Know where the business makes and loses money	Margin visible by job, crew and service line
The homeowner	Beneficiary	Get the problem fixed with minimal hassle	Accurate arrival window, one visit fix

1.4 Strategic pillars

The vision rests on three pillars and one foundation; every roadmap item must strengthen at least one of them.

1. **Autonomous scheduling.** The system proposes and repairs the schedule; humans approve exceptions.
2. **Revenue intelligence.** Every job surfaces the next best offer: maintenance plans, upgrades, follow-up visits.
3. **Connected customer experience.** Booking, tracking, payment and feedback in one thread the customer controls.
4. **Foundation: the job graph.** A unified, clean data model of jobs, assets, technicians, parts and customers that every pillar and partner builds on.

Three pillars on one job graph raise jobs per technician

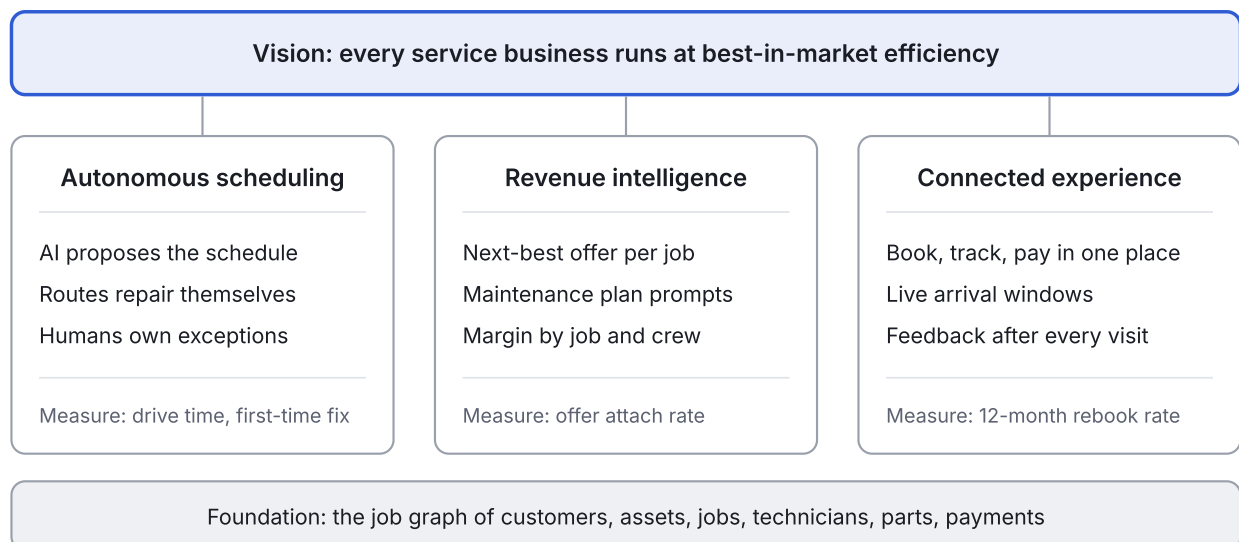


Figure 1. Strategic pillars on one foundation

Each pillar has its own measure, and all three roll up to the north-star metric in 1.6.

1.5 Product principles

- **Recommend, then automate.** Earn trust by showing the suggestion and the reason before taking the action.
- **The dispatcher stays in command.** AI removes the busywork; the human owns the exceptions.
- **Field first.** If it does not work offline on a phone in a basement, it is not done.
- **Every feature feeds the graph.** We do not ship features that create data we cannot learn from.
- **Prove value in dollars.** Every module reports its own impact in revenue or hours saved.

1.6 North-star metric

North star: completed jobs per technician per week (CJTW). It captures our value to the customer (more revenue from the same crew), depends on all three pillars, and moves within weeks, not quarters.

Input metric	Pillar	Why it drives the north star
Drive time as % of shift	Autonomous scheduling	Less driving frees hours for jobs
First-time fix rate	Autonomous scheduling	Avoids repeat visits that consume capacity
Schedule auto-accept rate	Autonomous scheduling	Measures trust in the AI decisions
Attach rate of recommended offers	Revenue intelligence	Raises value per visit
Customer rebook rate within 12 months	Connected experience	Keeps the board full with recurring work

Guardrail metrics: technician overtime hours, customer satisfaction (CSAT), and dispatcher override rate. A rise in CJTW that comes with burnout or poor CSAT is not a win.

1.7 Three-year horizon

Horizon	Theme	What the customer experiences
Year 1	Assist	AI suggests the schedule and offers; humans accept or edit
Year 2	Automate	Routine scheduling, follow-ups and reminders run hands-free
Year 3	Orchestrate	Lumen coordinates partners, suppliers and subcontractors across the job

1.8 What we will not do

Saying no protects focus. In the next three years we will not:

- Build accounting or payroll; we integrate with the systems customers already trust.
- Serve enterprises with more than 1,000 technicians, whose procurement and customization needs would slow the core product.

- Become a consumer marketplace that competes with our own customers for homeowner demand.
- Ship AI features that act without an audit trail or an undo.

2. Product Lifecycle

We manage Lumen Ops through five stages, and each stage has a different goal, a different team shape and an explicit gate before we invest in the next. The biggest lifecycle mistake is scaling go-to-market before retention proves the product works, so every gate is tied to evidence, not dates.

2.1 Stage-by-stage strategy

Stage	Goal	Product focus	Key metrics	Gate to move on
1. Discovery and validation	Prove the problem is painful and worth paying to solve	30+ customer interviews, dispatcher shadowing, concierge scheduling run by hand	Problem severity score, willingness to pay, pilot sign-ups	10 design partners agree to a paid pilot
2. Introduction (MVP)	Prove the wedge delivers measurable value	AI dispatch assistant on top of the customer's existing tool	Drive-time reduction, suggestion acceptance rate, weekly active dispatchers	8 of 10 pilots convert to paid; drive time down 15% or more
3. Growth	Find repeatable acquisition and expand the workflow	Native scheduling, technician app, revenue intelligence, first integrations	Net revenue retention, CAC payback, logo growth, activation time	NRR above 115%; CAC payback under 18 months
4. Maturity	Defend the position and widen margin	Platform APIs, partner marketplace, admin and compliance depth, pricing optimization	Gross margin, share of revenue from expansion, partner-sourced pipeline	Growth from core slows below 25% a year
5. Renewal or decline	Reinvent before the curve flattens	Autonomous operations, new verticals, adjacent buyers such as suppliers	Share of revenue from products under 3 years old	Board-level decision to invest, harvest or sunset

2.2 How decisions change by stage

- **Discovery:** optimize for learning speed. Prototypes are disposable and nothing is built that a spreadsheet could fake.
- **Introduction:** optimize for depth over breadth. A narrow product that 10 customers love beats a broad one that 100 tolerate.
- **Growth:** optimize for repeatability. Onboarding, pricing and integrations matter as much as new features.
- **Maturity:** optimize for efficiency and defensibility. The platform and ecosystem become the moat.
- **Renewal:** optimize for the next S-curve. A protected team with its own metrics explores the next bet so the core business does not starve it.

2.3 Feature-level lifecycle

The whole product moves through stages, and so does each feature. Every feature carries a lifecycle tag reviewed each quarter.

Tag	Meaning	Action
Beta	Being validated with a small cohort	Track adoption and qualitative feedback weekly
Invest	Proven value, adoption growing	Fund improvements, market it actively
Maintain	Stable, used, not differentiating	Fix bugs only; no new scope
Sunset	Low use or replaced by a better path	Announce 2 quarters ahead, migrate users, remove

A feature is a sunset candidate when fewer than 5% of active accounts use it in a quarter and it does not serve a contractual or compliance need. Removing features is part of the strategy: every feature kept costs support, testing and cognitive load.

2.4 Signals that we are in the wrong stage

- Sales is growing but 90-day retention is falling: we scaled before product-market fit. Pause paid acquisition and return to the introduction playbook.
- Retention is strong but new logos are flat: the product works but positioning or channels do not. Invest in go-to-market, not features.
- Most roadmap requests come from the largest customers: we are drifting toward custom work. Re-anchor on the ideal customer profile.

3. Platform Thinking

Lumen Ops wins long term by becoming the system other products build on, not by out-featuring every point tool. A product creates value through its own features; a platform creates value through what others build on it. We start as a product and become a platform deliberately, once the core has enough customers and clean data to be worth building on.

3.1 Product versus platform: when to open up

Question	Product stage answer	Platform stage answer
Who creates value?	Our team	Our team plus partners, developers and customers
What is the moat?	Feature quality and UX	Data, integrations and switching costs
How do we grow?	Selling more seats	Every new partner makes the product more valuable for every customer
What do we optimize?	Activation and retention	Ecosystem health and developer adoption

Trigger to open the platform: about 300 paying customers and at least 3 integration requests a month that we cannot staff. Opening earlier spreads a small team across partners with nobody to sell to.

3.2 Platform architecture

The platform has four layers, each with a clear owner and contract.

1. **Data layer: the job graph.** One model of customers, sites, assets, jobs, technicians, parts and payments. Every module reads and writes here; nothing keeps a private copy.
2. **Intelligence layer.** Shared AI services: schedule optimization, demand forecasting, next-best-offer, job-note understanding, churn risk. Each service exposes a confidence score and an explanation.
3. **Application layer.** Our own products: Dispatch, Technician app, Customer portal, Revenue Insights. They use the same public APIs that partners use.
4. **Ecosystem layer.** Public APIs, webhooks, an app marketplace and embedded partner apps such as financing, parts suppliers, accounting and telephony.

The design rule is **dogfood the platform**: if our own apps need a private shortcut, the public API is not good enough yet.

Our apps and partners build on the same job graph and APIs

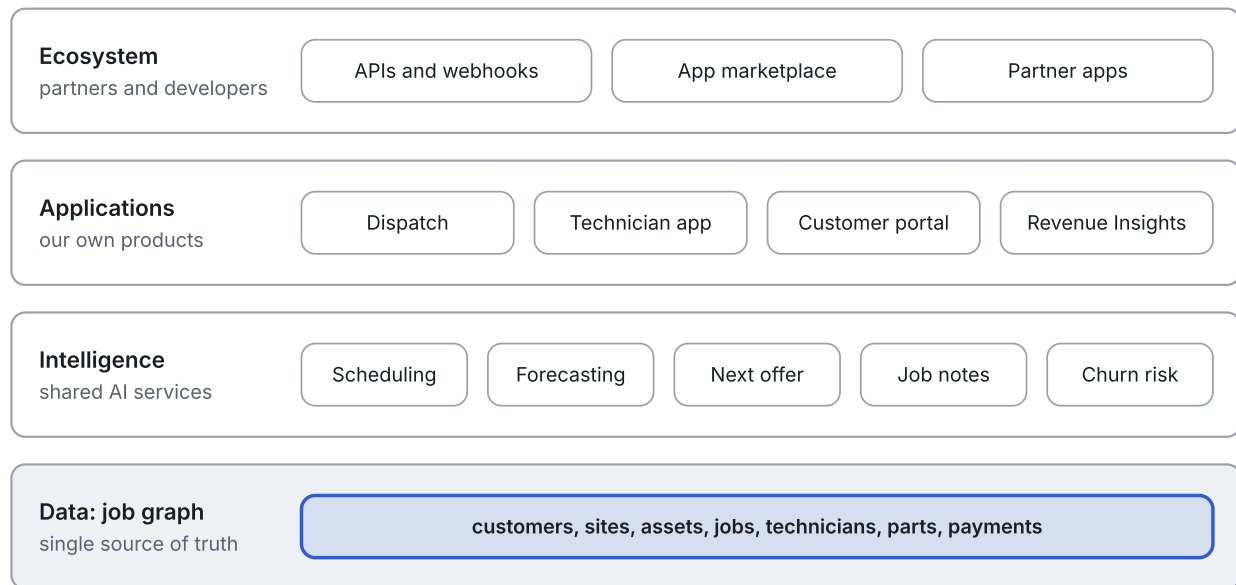


Figure 2. Platform architecture, four layers

The job graph sits at the base; everything above it, ours or a partner's, reads and writes through the same contracts.

3.3 Ecosystem participants and value exchange

Participant	What they bring	What they get
Service businesses (customers)	Jobs, assets and outcome data	Better decisions, connected tools
Integration partners (accounting, CRM, telephony)	Two-way sync with systems customers already use	Distribution to our customer base
Parts suppliers and distributors	Live inventory, pricing and delivery	Demand signal from scheduled jobs
Financing and warranty providers	Consumer financing and protection plans offered at the point of quote	Qualified, high-intent leads
Independent developers	Niche apps for verticals we will not build	Marketplace listing and revenue share

3.4 The data flywheel and network effects

The flywheel is our deepest moat: more jobs make the models better, better models deliver more value, more value brings more customers and more jobs.

- **Direct data effect.** Each completed job improves duration estimates, parts predictions and fix-rate models for similar jobs.
- **Cross-side network effect.** More service businesses attract more suppliers and partners; more partners make Lumen more useful to service businesses.
- **Benchmark effect.** Anonymized, aggregated data lets each customer see how its performance compares with peers, which no single-tenant tool can offer.

Data trust is a precondition. Customer data is never shared across tenants in identifiable form, benchmarks are opt-in, and customers can export their full job graph at any time.

3.5 Partner program and monetization

Tier	Requirements	Benefits	Commercial model
Registered	Public API access, sandbox	Docs, community support	Free
Certified	Security review, 10+ joint customers	Marketplace listing, co-marketing	15% revenue share on marketplace sales
Strategic	Deep integration, joint roadmap	Embedded in core workflows, joint selling	Custom; may include referral fees both ways

3.6 Governance

- **API versioning:** 12 months of notice before any breaking change; two versions supported at once.
- **Quality bar:** marketplace apps must meet uptime, security and support standards and are reviewed each year.
- **AI guardrails:** partner apps that act on schedules or customer messages must log every action and honor customer-level automation settings.
- **Platform council:** a monthly forum with product, engineering, partnerships and security that decides API priorities and resolves partner conflicts.

3.7 Platform metrics

Metric	What it tells us	Year 2 target
Accounts with 3+ active integrations	Depth of embedding and switching cost	60%
API calls from partners as share of total	Ecosystem activity	30%
Certified partners	Breadth of ecosystem	40
Marketplace-attributed revenue	Platform monetization	8% of total revenue
Time to first successful API call	Developer experience	Under 30 minutes

4. Go-To-Market Strategy

We win the first 300 customers by selling a measurable outcome, more completed jobs per technician, to operations leaders at 20 to 150 technician firms, starting in HVAC and plumbing. We land with AI dispatch, prove the gain in 60 days, then expand into the full workflow.

4.1 Ideal customer profile (ICP)

Attribute	Ideal fit	Disqualifier
Size	20 to 150 field technicians	Under 10 or over 1,000 technicians
Vertical	HVAC, plumbing, electrical (launch); pest control, appliance repair (year 2)	Construction projects with multi-month jobs
Job profile	High volume, 1 to 4 hour jobs, mixed reactive and maintenance work	Low volume, highly custom work
Tech stack	Legacy field-service tool or spreadsheets, open to change	Locked into a multi-year enterprise contract
Buyer signal	Hiring dispatchers, growing service area, recent acquisition	No operations leader in place

4.2 Segmentation and sequencing

Segment	Size band	Priority	Motion	Why now or later
Core mid-market	20 to 150 techs	Launch	Inside sales with product-led trial of the dispatch assistant	Sharpest pain, fast decisions, clear ROI
Upper mid-market	150 to 500 techs	Year 2	Field sales plus solutions engineering	Bigger deals but needs admin, SSO and integrations first
Private equity roll-ups	Portfolios of 5 to 30 firms	Year 2	Strategic partnerships with operating partners	One decision unlocks many sites; needs multi-entity reporting
Small shops	Under 20 techs	Not targeted	Self-serve only, no sales touch	Low price tolerance and high churn

4.3 Positioning

For operations leaders at growing service businesses **who** are capped by dispatcher bandwidth and technician capacity, **Lumen Ops** is an AI operations platform **that** schedules, routes and sells smarter on every job. **Unlike** legacy field-service tools that record work after it happens, **Lumen** decides what should happen next and proves the dollars it adds.

Alternative the buyer considers	Its strength	Our counter-position
Stay with the legacy field-service tool	Familiar, already paid for	We sit on top first, so no rip-and-replace; value in weeks
Enterprise field-service suite	Depth and brand	Months to implement and heavy services cost; we go live in 30 days
Hire another dispatcher	Simple and human	A dispatcher adds capacity linearly; Lumen makes every dispatcher more effective
Build in-house with spreadsheets	Full control	No learning models, no benchmarks, key-person risk

Messaging pillars: **more jobs per tech, a schedule that repairs itself, revenue on every visit.**

4.4 Pricing and packaging

We price per active technician per month, because value scales with technician capacity and buyers already budget that way.

Package	Who it is for	Includes	Indicative price
Dispatch Assist	Land: firms keeping their current tool	AI scheduling and routing on top of the existing system	\$45 per tech per month
Operations	Core: firms replacing their tool	Assist plus native scheduling, technician app, customer portal	\$95 per tech per month
Operations Plus	Expansion: growth-focused firms	Operations plus revenue intelligence, benchmarks, advanced analytics	\$140 per tech per month
Enterprise add-ons	Upper mid-market	SSO, multi-entity, premium SLAs, sandbox	Custom

Pricing principles: annual contracts with a 60-day value guarantee at land; no implementation fee for Dispatch Assist; marketplace apps billed through Lumen to simplify procurement.

4.5 Channels

Channel	Role	Year 1 share of pipeline (target)
Product-led trial of Dispatch Assist	Low-friction proof on the customer's own data	30%
Outbound to ICP accounts with buying signals	Predictable pipeline in the core segment	30%

Channel	Role	Year 1 share of pipeline (target)
Trade associations, regional shows, distributor events	Credibility in tight-knit vertical communities	15%
Content and ROI benchmarks (annual State of Field Service report)	Category leadership and inbound demand	15%
Partners and referrals (accounting, suppliers, PE operating partners)	Warm introductions and lower CAC	10%

4.6 Sales motion and customer journey

1. **Attract:** ROI calculator and benchmark report capture operations leaders searching for capacity fixes.
2. **Prove:** a 14-day trial connects to the existing tool and shows what tomorrow's schedule would look like with Lumen.
3. **Close:** a business case built from the trial data, signed by the VP Operations and the owner.
4. **Onboard:** live in 30 days with a named onboarding lead; first value milestone is the first fully AI-proposed day.
5. **Expand:** quarterly business reviews show realized gains and open the case for Operations and Operations Plus.
6. **Advocate:** reference program, case studies and peer benchmarks turn customers into the channel.

4.7 Launch plan

Phase	Timing	Objective	Exit criteria
Private beta	Months 1 to 3	Validate value and onboarding with 10 design partners	8 of 10 convert; drive time down 15% or more
Limited availability	Months 4 to 6	Prove a repeatable sales motion in HVAC and plumbing	40 paying customers; win rate above 25%
General availability	Months 7 to 9	Scale demand and announce at the major industry show	Pipeline coverage 3x quota; CAC payback under 18 months
Expansion	Months 10 to 18	Add verticals, upper mid-market and first marketplace partners	300 customers; NRR above 115%

Launch readiness checklist owned by the PM:

- ☐ Positioning and messaging approved by sales, marketing and leadership
- ☐ Pricing page, ROI calculator and trial flow live
- ☐ Sales playbook, demo script and objection handling trained

- ☐ Support runbooks, help center and status page ready
- ☐ Launch metrics dashboard and success criteria agreed
- ☐ Three referenceable customers with quantified results

4.8 Customer success and retention

- **Health score** combining weekly active dispatchers, suggestion acceptance rate, technician app adoption and support tickets.
- **Value realization reviews** at day 60 and each quarter, reporting jobs per technician against the pre-Lumen baseline.
- **Expansion playbook** triggered when acceptance rate passes 70%, a signal the customer is ready for more automation.

4.9 GTM metrics

Stage	Metric	Year 1 target
Acquire	Trial-to-paid conversion	25%
Acquire	CAC payback	Under 18 months
Activate	Time to first AI-proposed day	Under 21 days
Retain	Gross revenue retention	Above 90%
Expand	Net revenue retention	Above 115%
Advocate	Customers willing to be referenced	30%

5. Bringing it together: roadmap, risks and operating model

The four lenses become one plan through a themed roadmap, explicit risks, quarterly OKRs and a fixed operating cadence.

5.1 Themed roadmap (Now, Next, Later)

Horizon	Theme	Key bets	Lens it serves
Now (0 to 6 months)	Prove the wedge	AI dispatch assistant, live route repair, integration with the 3 most common legacy tools	Vision, Lifecycle (introduction)
Next (6 to 18 months)	Own the workflow	Native scheduling, technician mobile app, customer portal, revenue intelligence	Lifecycle (growth), GTM expansion
Later (18 to 36 months)	Open the platform	Public APIs, partner marketplace, peer benchmarks, supplier ordering, autonomous mode	Platform, Vision (orchestrate)

Themes are commitments; individual features are hypotheses that can change as evidence comes in.

5.2 Prioritization framework

Every candidate initiative is scored on four factors before it enters the roadmap.

Factor	Question	Weight
North-star impact	How much will it move completed jobs per technician?	35%
Strategic fit	Does it strengthen a pillar or the job graph?	25%
Confidence	How strong is the evidence: data, interviews, experiments?	20%
Effort and risk	What does it cost in time, complexity and opportunity?	20% (inverse)

5.3 Key risks and mitigations

Risk	Likelihood	Impact	Mitigation
Dispatchers distrust AI and override most suggestions	Medium	High	Explain every suggestion, start in recommend mode, track override reasons and retrain
Legacy vendors block or degrade integrations	Medium	High	Use customer-authorized access, build native scheduling early as a fallback
Incumbent suite ships a credible AI layer	High	Medium	Compete on speed to value and benchmark data the incumbent cannot match

Risk	Likelihood	Impact	Mitigation
Data quality in customer systems is poor	High	Medium	Automated data cleanup in onboarding; value shown even on partial data
Scaling sales before retention is proven	Medium	High	Lifecycle gates tied to NRR and CAC payback, reviewed by leadership
AI errors damage customer trust	Low	High	Audit trail, undo on every automated action, customer-level automation limits

5.4 Sample OKRs (first year)

Objective 1: Prove Lumen measurably increases technician capacity.

- KR1: Customers live 90 days or more see a 12% or higher increase in completed jobs per technician per week.
- KR2: Schedule suggestion acceptance rate reaches 70%.
- KR3: First-time fix rate improves by 5 percentage points across the customer base.

Objective 2: Build a repeatable growth engine in the core segment.

- KR1: 300 paying customers.
- KR2: Net revenue retention above 115%.
- KR3: CAC payback under 18 months.

Objective 3: Lay the platform foundation.

- KR1: All first-party apps run on the public API with no private endpoints.
- KR2: 10 certified partners live in the marketplace beta.
- KR3: Time to first successful API call under 30 minutes.

5.5 Operating cadence

Forum	Frequency	Purpose	Owner
Product review	Weekly	Progress on bets, metric movement, blockers	Product lead
Customer council	Monthly	Design-partner feedback on roadmap and prototypes	Product and customer success
Platform council	Monthly	API priorities, partner issues, governance	Platform PM
Business review	Quarterly	OKR scoring, lifecycle gate review, roadmap re-plan	Head of Product with leadership
Strategy refresh	Yearly	Revisit vision, pillars, ICP and "will not do" list	Executive team

5.6 Glossary

- **CJTW:** completed jobs per technician per week, the north-star metric.
- **Job graph:** the unified data model of customers, sites, assets, jobs, technicians, parts and payments.
- **NRR:** net revenue retention, revenue this year from last year's customers divided by their revenue last year.
- **CAC payback:** months of gross margin needed to recover the cost of acquiring a customer.
- **ICP:** ideal customer profile, the company type we prioritize.