

The Load Curve™

Five stages of technical leadership: what each one costs, what it buys, and how to tell when a company has outgrown the one it is in.

Fractional CFOs see the financial side of this before most people outside engineering do. You read the payroll, the vendor spend, and the roadmap dates the forecast is built on, and few people in the company read all three together. What those numbers do not give you is a way to say what they add up to.

This is that language. It places a company within five stages, from one where a single person holds the entire architecture in their head to one that needs a CTO with a leadership layer underneath. Each stage names what it costs, what it buys, and the specific signals that the company has outgrown it.

How to use it. Take the first reading yourself, along with the finance half of the second, from the page that follows. The rest of the second reading needs data that lives within engineering, so the company takes it after you hand over the document.

In three of the five stages, the first answer is not to hire anyone fractional. A company at the first stage should stop shopping unless the next jump is clearly coming. A company at the fourth stage has outgrown fractional help and should run a search. A company at the fifth stage, once its leadership layer is in place, should wait for a specific trigger. That is not modesty. A guide that always concludes that its author should be hired is one you would never hand to a client, and you would be right not to.

On the numbers. Every figure lives at theloadcurve.com/bands rather than in these pages. Compensation, retainer, and recruiting ranges shift; a printed range is wrong within a year and misleading within two years. The cost structure does not change, so the structure is what is written here.

Everything past this page is written to the company, not to you. Hand it over without editing it.

The Placement

Two readings. Never one.

Reading one: the revenue band

Where the money says you are. This is a lookup, not a verdict. Companies of similar size in similar industries tend to arrive at similar structural demands, which makes revenue a reasonable place to start looking and a terrible place to stop.

Two companies at identical revenue can sit at different points on this curve. Revenue tells you where to start looking. It never tells you precisely where you are. The bands themselves are drawn in Chapter 1 of *Structural CTO™*, which came with this guide.

Reading two: the structural band

Where the practices actually are. This reading has two halves, taken by two different people, because no single seat holds both sets of data.

What you can see from the finance seat

These four are visible from where you already sit. Any one of them alone has ordinary explanations. Together they tell you a decision bottleneck exists, and with the revenue band they tell you which stage to read first.

- **Engineering headcount up materially year over year, with the same number of roadmap items shipped, for two quarters or more.** Headcount is in the payroll you run. Shipped roadmap items are in the board update or the product report, wherever the company tracks them. You do not need engineering access to put the two side by side.
- **A cloud bill growing on a curve nobody has tied to revenue or usage.** The number goes up. Ask what it goes up with, and nobody has an answer.
- **Roadmap dates that move for reasons that never repeat.** You re-forecast against those dates every time they slip. Each slip has a credible

explanation. No two explanations are the same. A pattern hiding behind individually reasonable causes is still a pattern.

- **You cannot get thirty minutes with the founder or the lead engineer that is not about a decision only they can make.** You experience this one directly.

What the company confirms from inside engineering

Two measurements, both taken from a calendar and a ticket queue, and both requiring access you do not have. **This is the page to hand over.**

How many decisions crossed a boundary last month and had to route through one person before anything moved? A boundary is any line between two teams, two systems, or two budgets. Count them.

How long did each one wait? Not how long the decision took to make. How long it sat before it reached the person who could make it.

Reading the two numbers. A handful of boundary decisions a month, each settled within days, is a load a working lead can still carry. When the count climbs past a handful and the waits run to weeks, read Stages 2 and 3. When decisions queue on one calendar even with a CTO in place, read Stage 5. The precise calibration for one company is what the Placement measures.

The finding, and what it costs

The output is never “this is a thirty-million-dollar company.”

It is: **this company is paid like a thirty and built like a ten, and the gap between those two numbers is already being paid for.**

That is a cost-structure finding, which is what makes it actionable. The gap does not sit on the P&L as a line item, so it never gets managed, and it is expensive anyway: in unpaid overtime absorbed by whoever stands closest to the problem, in decisions that waited three weeks for a person who was in another meeting, and in dates that moved for reasons that never repeat. **The stage a company belongs in is the stage where that gap closes.**

One term, used throughout. A fractional CTO describes an engagement arrangement: hours, duration, contract structure. A Structural CTO™ describes a method: reading where a company sits on this curve, and building the structural decisions its actual position requires. The hours are a consequence of the diagnosis rather than the service itself.

Find the stage that matches the structural reading, not the revenue one.

Then ask where the company is headed. A clear, solid reason to expect the next jump, not a stretch goal, means the next stage's structure belongs in place before the load arrives.

Stage 1: Absorbed

Where the load sits. The load exists, and nobody is named to carry it. A technical founder or a strong senior engineer holds the entire architecture in their head because there isn't much architecture yet.

What it costs. Nothing on the P&L. It is carried inside a salary already being paid.

What it buys. Total coherence at zero coordination cost. One person holds the whole model, so every decision is fast and consistent. There is nothing to align because there is only one mind to align.

This is a real stage, not a deficiency. A company that buys its way out of it early buys overhead it cannot use yet.

Signals the company has outgrown it. Three:

- One person is the last word on every decision touching more than one product area, and everybody already knows to wait for them.
- Architecture decisions exist only as institutional memory. The honest answer to “why does it work this way” traces back to a conversation nobody wrote down.
- “We should really document this” has become a running joke rather than a task anyone owns.

The honest answer at this stage: you do not need a Structural CTO™ yet, and anyone selling you one on today's load is selling hours. Stop shopping, unless you are anticipating the jump to the next stage: not a stretch goal, but a clear, solid reason to expect it, such as a signed contract, a funded expansion, or a committed launch, and you want the structure in place before the load arrives. Otherwise, come back when two of the three signals above are true in the same month.

Stage 2: The First Load Curve Bearing

Where the load sits. The need has outgrown what a working lead can absorb alongside their existing job, and it has not grown enough to justify a full-time hire. This is the easiest point on the curve to miss, because nobody decides to enter this stage: a company arrives there and keeps going.

What it costs. This is the page that lands hardest in a finance conversation, because **the cost is already being paid and it is off the books.** It is absorbed as unpaid overtime by whoever is standing closest to the problem. Engaging this stage adds a visible cost in exchange for a hidden one: a fee that can be sized, managed, and canceled, against overtime nobody books. See theloadcurve.com/bands.

What it buys. A second person in the room who can carry that specific class of decision. More hours never fixes this, because the gap was never about time. No amount of personal discipline manufactures a second person.

What it looks like. One named mandate, few standing touchpoints, no board or multi-entity involvement.

Signals the company has outgrown it.

- Boundary-crossing decisions stop being a handful a month.
- The mandate keeps widening past what it was named for.
- People start routing around the arrangement rather than through it.

Stage 3: A Structural CTO on a Full Mandate

Where the load sits. The load is broad rather than narrow. Architecture, sequencing, build-versus-buy, vendor selection, and roadmap governance all cross boundaries. The company needs a seat rather than a mandate. Presence is still not the binding requirement.

The dividing line, so these two stages are not two names for one thing: Stage 2 is a mandate. Stage 3 is a seat.

What it costs. A full monthly engagement with a minimum initial term. See theloadcurve.com/bands.

What it buys. Depth on a schedule. A Structural CTO™ is built for depth, and the hours worked are a consequence of the diagnosis rather than the service being bought.

Signals the company has outgrown it.

- Decision volume outpaces the calendar. The company starts routing decisions to whoever is available rather than waiting for the next session.
- The technical function needs to sit inside the daily operating rhythm: standups, incident response, real-time prioritization. Depth stops being the binding need and presence starts.
- The board asks who is leading technology day to day rather than who is advising on it.

Stage 4: A Full-Time VP Engineering or CTO

Where the load sits. Presence is now the binding requirement. The company needs someone in the room every day, not someone with depth on a schedule.

What it costs. Fully loaded salary, equity, and a recruiting fee, plus the carrying cost of the search itself, a cost that seldom makes it into the hiring budget. See theloadcurve.com/bands.

What it buys. Daily presence, and a single accountable executive the board can address directly.

The honest answer at this stage: the company has outgrown a Structural CTO™ and should hire. A practitioner already sitting in the Stage 3 seat should name this before the client does, and should help build the hiring profile for the person who replaces them.

One reading worth taking before the next candidate. If qualified candidates keep declining, or the shortlist keeps resetting, the seat is mis-specified. A role nobody qualified will accept is usually three roles written as one, or one role written for a company at a stage it has already left. A failed search is expensive, and it is also evidence. Take the reading before rerunning the same posting.

Stage 5: A CTO Plus a Leadership Layer

Where the load sits. The company has a CTO, and the CTO has become the routing seat, one level up from where the founder stood at Stage 1. The pattern repeats at a larger scale, which is what makes it easy to miss: the org chart looks correct.

What it costs. A management layer added in sequence rather than all at once: tech leads per product line first, then managers per function once the product layer has taken. See theloadcurve.com/bands.

What it buys. The CTO's own reach is no longer the constraint on the company's decision-making throughput.

Signals the company needs the layer.

- Boundary-crossing decisions queue on one calendar again.
- The CTO cannot be out for a week without something stalling.

Once the layer is in place: three triggers, and then nothing. Once the layer carries the load, a company at this stage should do nothing until one of these fires: a major acquisition, a platform rebuild, or a shift in market or regulatory pressure the existing technical leadership has never navigated. That gap looks structurally like the First Load Curve Bearing, and it shows up within a company that already has a CTO rather than as an addition to one. It is handled by a bounded engagement alongside the sitting CTO, never by replacing them.

What to Do With a Reading

Reading	The correct move
Stage 1	Nothing. Stop shopping, unless the next jump is clearly coming.
Stage 2	A conversation with a Structural CTO™ about one named mandate.
Stage 3	A conversation with a Structural CTO™ about a full seat.
Stage 4	A search, and a check of the seat's specification if qualified candidates keep declining.
Stage 5	Build the leadership layer if the CTO has become the routing seat. Then nothing, until one of the three triggers fires.

The Load Curve Placement

Where your company actually sits, and what the next stage costs you.

The common way to stall at one of these five stages: a company reads its revenue number, assumes the structure that usually comes with it, and never checks. Two companies at identical revenue can sit at different points on this curve. Revenue tells you where to start looking. It never tells you exactly where you are.

- **Both axes, run properly.** The guide asks you for a revenue band and a rough structural read. The Placement measures the reading that actually decides: how many decisions crossed a boundary last month, how long each one waited, and where they routed, taken from your calendar and your ticket queue rather than your org chart.
- **A written placement, not a deck of recommendations.** Your current stage, the stage you are moving into, and what the crossing costs. Short enough that your board reads all of it.
- **Your graduation signals, named specifically.** Not “when you grow.” A decision count, a wait time, and a routing pattern precise enough that you see the crossing yourself, months before anyone brings it to you.
- **In three of the five stages, the first answer is not hiring me.** A company at Stage 1 hears that it should stop shopping, unless it has a clear reason to expect the next jump. A company at Stage 4 hears that it has outgrown a Structural CTO™, and leaves with help writing the profile for the person who takes the seat. A company at Stage 5 hears that it should wait for a trigger. A placement that always lands on an engagement is a proposal wearing a diagnosis.
- **Nothing ongoing.** One engagement, complete in itself. No retainer attached, no minimum term, no standing meeting appearing on your calendar afterward.
- **No pitch inside the room.** What happens next is a decision you make later, with the written placement in front of you and nobody selling into it.

- **Run by the person who built the instrument.** The Load Curve™ is not a framework I picked up. It is the one I named, defined, and wrote the book on.

To arrange a Placement: Anthony@StructuralCTO.com

About the Instrument

I am a Structural CTO™. More than thirty years in technology, most recently on a platform carrying more than a hundred million transactions a month, where I moved fixed cloud spend to variable and drove per-transaction cost to \$0.00035.

A fractional CTO describes an engagement arrangement: hours, duration, contract structure. A Structural CTO™ describes a method: reading where a company sits on this curve and building the structural decisions the company's actual situation requires. The hours are a consequence of the diagnosis rather than the service itself.

The full instrument, with both axes drawn and one worked placement on a real twelve-million-dollar business, is Chapter 1 of *Structural CTO™*, which came with this guide.