

BEYOND THE TEMPORARY FIX

The Technology Debt Accelerator: When Quick Fixes Became Permanent Architecture

A Practitioner's Perspective on the Pandemic's Hidden Inheritance in Enterprise Transformation

Giovanni Leonardi

June 2020



The Technology Debt Accelerator: When Quick Fixes Became Permanent Architecture

Transformation · No. 244

Originally written June 2020 | Re-edited and re-rendered for the WhereBeyond Edition, 2025

“Nothing is as permanent as a temporary solution that works.”

1. The Speed We Admired

In the space of a few weeks this spring, organisations did things with their technology that their own roadmaps had scheduled for years hence. Entire workforces were moved to remote working over a weekend. Customer-facing services that had lived only behind a counter appeared online in days. Approval chains that had taken months to redesign were simply suspended. Integrations that architecture review boards had deferred for a quarter were built on a Tuesday and live by Thursday. The pattern that recurs in every account of these weeks is the same: astonishment at how fast the organisation could move once it decided it had no choice.

The pride was earned. It is worth saying plainly, because the argument that follows is a cautionary one and I do not want the caution mistaken for disparagement. What was achieved under pressure was genuinely remarkable, and the people who achieved it deserve the credit they are receiving. But pride and prudence are not the same instinct, and it is the job of anyone who thinks seriously about transformation to ask the unglamorous second question. Not how did we move so fast — that question is being asked everywhere — but what did we take on in order to move so fast, and when does the bill arrive.

Because we did take something on. Speed of that kind is never free. It is purchased, almost always, with debt.

2. The Nature of the Debt We Incurred

The metaphor of technical debt has been with us for the best part of thirty years, and its power lies in its precision. Like financial debt, it is not inherently bad. Borrowing to seize an opportunity you could not otherwise afford is often the right decision. The danger of debt is not that it exists but that it accrues interest, and that the interest is paid in a currency — slower future change, higher fragility, mounting maintenance — that does not appear on any balance sheet until it is large.

What we incurred this spring was technical debt of a particular and unusually dangerous kind. It was incurred at speed, which meant the usual small disciplines that keep debt

visible — documentation, review, the deliberate note that says this is temporary, revisit by such a date — were the first things sacrificed. It was incurred in parallel across every part of the organisation at once, so that no single person holds a picture of the whole. And it was incurred invisibly, because a quick fix that works looks, from the outside, exactly like a considered solution. The screen loads. The customer is served. The report runs. Nothing about the surface betrays the improvisation underneath.

A quick fix that works looks, from the outside, identical to a considered solution. The screen loads, the customer is served, the report runs. Nothing on the surface betrays the improvisation underneath — which is precisely why the debt goes uncounted.

This is the essential difficulty. Financial debt announces itself; a statement arrives each month. Technical debt is silent by nature, and pandemic technical debt is silent squared — undocumented, distributed, and disguised by the very fact that it functions. An organisation can carry an enormous and growing liability of this kind while every dashboard it looks at glows green.

3. Why the Temporary Becomes Permanent

The heart of the matter is a pattern every practitioner has watched play out, long before this year, in slower motion: the quiet calcification of the temporary into the permanent. There is an old engineer's proverb that captures it exactly — nothing is as permanent as a temporary solution that works. The pandemic did not invent this pattern. It poured accelerant on it.

Why does the stopgap become the structure? Not through negligence, but through a sequence of individually reasonable decisions.

- It works, so the pressure to replace it evaporates. The entire justification for revisiting a quick fix is that it is inadequate. But a quick fix that performs adequately removes its own reason for being reconsidered. The fire is out; attention moves to the next fire.
- The people who built it move on. The improvised integration was stood up by whoever was available in a frantic week. They are now three crises downstream. The knowledge of what was really done, and what was deferred, walks away with them, and often lives nowhere else.
- It quietly becomes load-bearing. Other things get built on top of the stopgap, because it is there and it works. What began as a temporary prop acquires dependents, and each dependent raises the cost and risk of ever removing it. By the time anyone proposes replacing it, it is holding up a wall.
- There is no owner and no trigger. The temporary solution was, by definition, nobody's considered design. It has no product owner, no lifecycle, no review date. Nothing in the organisation is scheduled to ever ask whether it should still exist.

Each step is rational in isolation. The aggregate is an architecture that no one chose, assembled from decisions that were each meant to be undone and never were. This is how organisations acquire the strange geology of their systems — layer upon layer of

former emergencies, fossilised in place, long after anyone remembers why.

“The systems we will inherit from this year were not designed. They were deposited — layer upon layer of former emergency, fossilised in place long after anyone remembers the crisis that laid them down.”

4. The Transformation Paradox

Here the argument turns, because the pandemic has handed transformation a genuine paradox, and it is more uncomfortable than the triumphant narrative allows.

On one reading, these weeks were transformation's finest hour. They demolished the excuse. For years the standard objection to ambitious change has been that it is too hard, too slow, too risky — that the organisation simply cannot move at that pace. That objection is now visibly false, and everyone has seen it be false. The permission structures that normally throttle change were suspended, and change flooded through the gap. This is the version of events being celebrated, and it is true.

But there is a second reading, and it sits awkwardly beside the first. The same speed that proved transformation possible also generated the debt that will make the next transformation harder. We have demonstrated that we can move fast, and in the same motion we have littered the ground with quick fixes that will, in eighteen months, be the very legacy systems whose brittleness we complain about. The organisation that transformed heroically this spring may find itself, not long from now, transforming again — this time to clean up after the transformation it is currently applauding.

This is the gap between transformation intent and transformation reality, laid bare. The intent was never to build permanent architecture; the intent was to survive a crisis. But intent does not govern outcomes. Structural forces do, and the structural forces — no owner, no trigger, it works so leave it — all point the same way: toward permanence by default. Unless something deliberate intervenes, the reality will diverge from the intent in the most predictable manner imaginable. What was meant to be temporary will stay, not because anyone decided it should, but because no one decided it should not.

5. What Honesty Requires Now

I want to resist the urge to end with a tidy methodology, because the honest response to this moment is not primarily a process — it is a posture. The organisations that handle this inheritance well will be distinguished less by the sophistication of their tooling than by their willingness to be honest about what they have actually built.

Honesty begins with acknowledgement. The first and most resisted step is simply to admit that the debt exists and is material — to say, at the level where transformation is governed, that the remarkable delivery of this spring came at a cost we have not yet counted. This is uncomfortable precisely because it complicates a story everyone wants to keep simple and heroic. But a debt unacknowledged is a debt uncontrolled.

Acknowledgement makes possible an inventory. While the memory is fresh, before the people who improvised these solutions have scattered, there is a narrow window to write down what was really done: which fixes were meant to be temporary, what they depend on, what depends on them, and what the considered version would have looked like. This is not glamorous work and it will not be thanked. It is also the single highest-return act available, because it converts silent, distributed debt into a visible, managed register — and only what is visible can be governed.

And inventory makes possible the decision that matters most: the deliberate choice, fix by fix, of what to keep and what to retire. Some of what was built in haste is genuinely good and should be adopted permanently, with proper foundations placed under it. Some is a liability that should be dismantled before it becomes load-bearing. The failure mode is not keeping the quick fixes; it is keeping them by default, without ever choosing. The whole of the discipline this moment asks for can be reduced to a single sentence: decide, on purpose, what your emergency built — before time decides for you.

That is the quiet work that will separate the organisations that merely survived this year from those that actually learned from it. The speed was the easy part, and we should be proud of it. The honesty about its cost will be the hard part, and it is the part that determines whether the architecture we are living inside a year from now is one we chose — or merely one we failed to unchoose.