Plan C: Moving to Continuous Modernization

Modernization is a decades-old concept, yet the industry is notoriously bad at it, despite spending more on it each year. Jaded CIOs are understandably cautious about yet another risky approach. When it can all go so wrong with modernization, what is the right way?

By Stephane Croce, CEO, CobolCloud Plan C: Moving to Continuous Modernization

A Failure to Serve

Keeping IT aligned with business needs has always been the core mission of the CIO. Technology is expected to enable, accelerate, and sustain business performance.

Yet in practice, this mission is increasingly difficult to fulfil. Budgets are constrained. Priorities multiply. Backlogs grow. Innovation is postponed. Skills erode. Technical debt accumulates.

Large organizations rely on complex, long-standing systems (often referred to as "legacy") that continue to run the business reliably. But they are often under-documented, poorly understood, and difficult to evolve, and perceived as obstacles to change.

Against this reality, organizations are faced with two approaches.

Plan A. Keep Calm and Carry On

Larger organizations' IT provision, including many "legacy" applications, have served the business successfully for decades. The core business operations and "business rules" that are the fabric of the organization's success are embodied by, encapsulated by, the very lines of code that comprise those core applications. That's the good news.

However, those applications are often victims of their own success. Successfully supporting the business for a long period, without any visible risk or issue, their relative priority for future investment is questioned. After all, if the system works, why keep spending so much to improve it? IT budgets are squeezed, limiting the capacity to meet new priorities and requirements. A mounting backlog grows, new functionality is late, technical debt creeps up, skills erode, innovation is shelved.

Once-trusted technology that kept the business running, is now falling increasingly behind contemporary requirements, whether functionality, integration, best-practice, or incumbent skills.

Funding, priorities, and – frequently – the ignorance of their value, often leave these legacy systems, and the motivation to improve the situation, forgotten, stagnating.

Plan B. Start Over with a Bang.

Keeping technology current has been an essential IT function since even the Year 2000 issue. *Legacy Modernization* has existed for some time, as organizations have variously selected packaged ERP and CRM systems, rewritten applications using new languages, adopted commodity cloud-native or SaaS apps, and – soon – explored AI-driven replacements.

These big-bang modernization projects are extremely complicated. Countless 'variables' are involved (millions of lines of code, dozens of application areas, multiple data sources, a plethora of technologies), making problem determination highly complex.

When they work, it is a happy miracle. If not, nobody knows why.

These approaches all assume that complex systems can be fully and quickly understood and reimagined in a single project. That's just not true, and the results illustrate this. With missed budget or milestone targets, or not delivering the promised business value, modernization project failure rates are as high as 70%.

Which, for many leaders, is an understandably unacceptable level of risk.

The issue is not just that these projects are difficult. It is that the approach itself is flawed.

We may have been looking at modernization the wrong way.

Plan C. C is for Continuous Modernization.

Legacy modernization faces a painful decision – a slow descent into oblivion of a once vital application, as knowledge and business alignment ebb away, or a high-risk approach that plays roulette with the organization's most trusted IT asset – the embodiment of how the business works.

Instead, many IT teams have sought a Plan C, and turned to Continuous Modernization - "An approach to modernizing legacy application and leveraging their untapped digital value in a cost-effective, timely, and controlled way". Gartner defines continuous modernization as "an iterative approach for iden-

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tifying, prioritizing, and removing obstacles to digital business from legacy applications." Their 2024 report, "Use Continuous Modernization to Optimize Legacy Applications," finds continuous modernization to be the preferred method over more draconian replacement projects.

With Continuous Modernization, CIOs are encouraged to recognize that modernization is an endless journey, and that any efforts so far are – inevitably – temporary. After all,
the word modernization means bring up to date and implies the need to revisit the position again in the future. And no IT system can stand the test of time without future improvement.

Continuous Modernization is at its most vital in those heritage or legacy systems that have received the least recent attention. They are the furthest behind the modern wave, so their modernization continuum needs a rapid reset.

Traditional legacy modernization often fails when executed too quickly, without fully understanding the systems being modernized. Sadly, you cannot modernize what you do not understand, meaning complex systems cannot be safely transformed in one step. And understanding cannot be rushed. Continuous modernization is not a softer version of existing approaches. It is a different way of thinking. It requires time, control, and focus, evolving step by step, in a structured way.

It demands long-term discipline, not a one-off effort.

Continuous Modernization promises a more considered future, one which supports incremental change that is lower in risk and that does not require yet another round of stratospheric investment to deliver improvements, and – vitally - enables the application owners to become self-sufficient in the future. It reflects a truth that modernization is a journey, and that the organization's own people must be capable of taking that journey themselves.

A Continuous Modernization Platform for COBOL business systems

Built upon three decades of technology experience – with customers, and for customers – CobolCloud's Continuous Modernization Platform addresses the long-term needs of an organization's crucial legacy systems, with a path to future operational success.

The platform supports a holistic approach to continuous modernization, including

- The technological capability and flexibility to update, change, and even move systems according to need, without fear of failure
- The capacity to self-determine so that future strategy decisions are free from vendor dependencies or unilateral platform attachments
- The ability to re-learn hidden business processes embodied in application code, using onboarding, AI tooling, and collaboration to build a self-sufficient, highly competent team with the skills to master their own technical destiny

Too often, organizational IT strategies have resulted in significant dependencies upon specific technology, their vendors, or service providers, that ultimately fail to deliver the business results or future flexibility the CIO needs. A big shift from one tech stack to another just changes the dependencies. The logo on the invoice might differ, but the problem remains.
The CobolCloud Continuous Modernization Platform tackles this by offering a considered, robust technological and operational solution for the organization to regain full control of their IT capability, removing risky gaps and expensive dependencies that fail to serve them. Core COBOL applications are highly complex repositories of nuanced business intelligence and highly valued business assets. Our platform philosophy is that these systems should be harnessed, not replaced.

A Platform for Best Practice

The platform provides an execution model that supports the principle of evolving what already works. It incorporates a set of tools (including the managed open source CobolCloud Compiler, Workbench, and SQL pre-compiler products), plus build and delivery processes, and supporting expertise to facilitate an immediate improvement and long-term viability and self-sufficiency for both the critical business applications and the teams who support them.

The platform supports the three fundamental phases of continuous modernization:

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- **Move:** Enable COBOL applications to adapt to modern environments, enabling new technology adoption with minimal disruption or risk.
- **Master:** Enable teams to self-manage applications, tooling, and delivery processes, using Managed Open Source tools that offer freedom from vendor lock-in.
- **Manage:** Restore understanding and control of COBOL applications using AI insights to support self-sufficient modernization processes.

The phases reflect a strategic process of continuous modernization, and the necessary tasks, technologies, and incumbent skills required to successfully implement them. Other solutions focus on a single point in time; our platform focuses on long-term success.

For The Journey

A bewildering supply of snake-oil solutions to the "legacy challenge" promise to automagically transform older applications into the very latest in enterprise software, but all too often they fail to protect their value, and simply replace one complex, costly system with another one.

In their continuous modernization report, Gartner summarized, "Applications and software engineering leaders should ... use continuous modernization to minimize the cost, risk and impact of legacy-application optimization."

Modernization is never finished. It is the journey, not the destination. And it must move towards greater understanding of the value of the application, not away.

CobolCloud's long-standing experience of the COBOL marketplace, and our pioneering Continuous Modernization Platform, prioritises customer autonomy and the long-term success of the applications.

Organizations that succeed will not be those that replace their systems the fastest, but those that find a way to truly understand, control, and extend them for the long-term.

It is time to start the right journey.

Plan C...

C is for Continuous Modernization.

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