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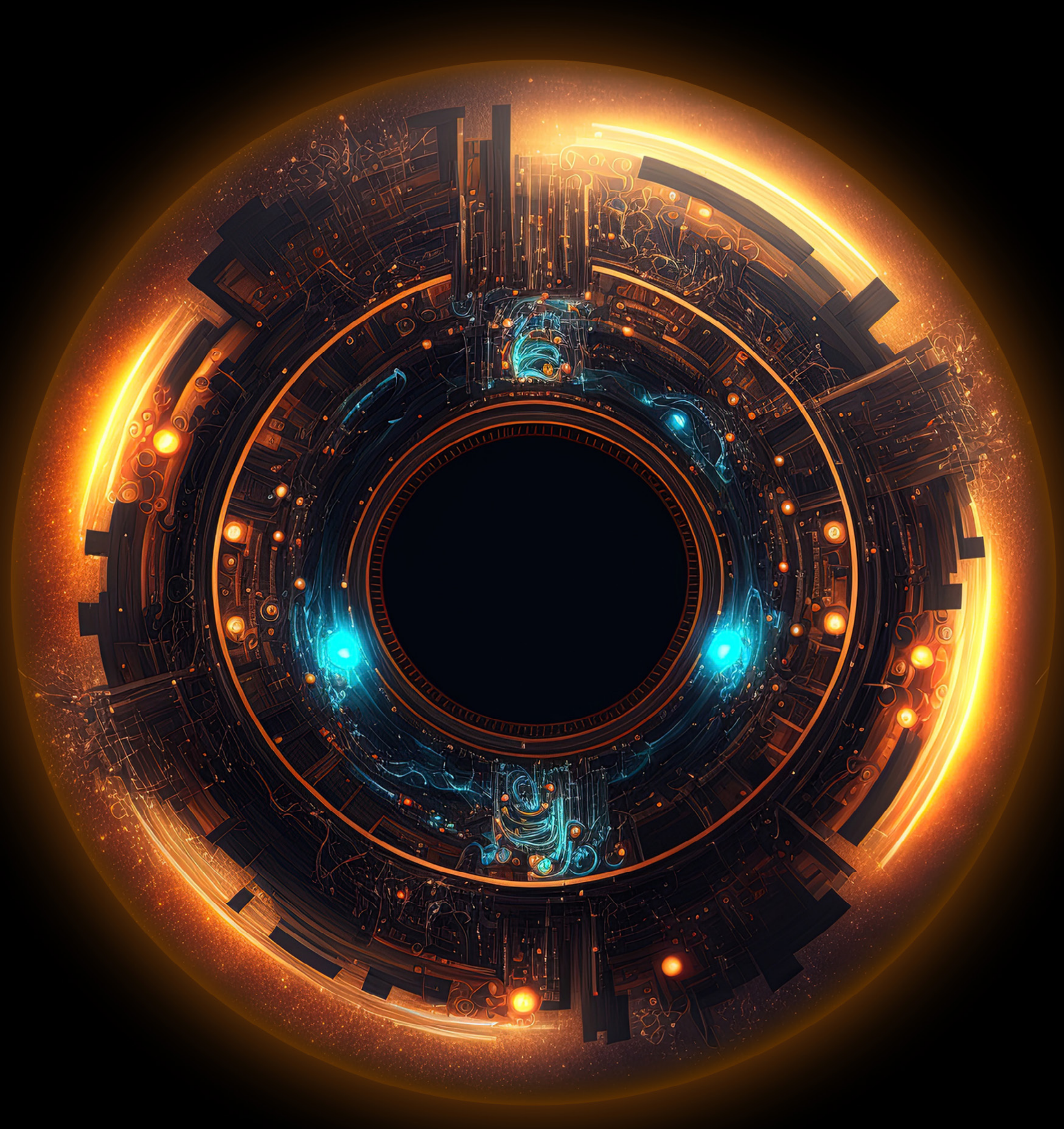


Navigating the complexities of billing transformation

Lessons learned from the telecom industry

Contents

Is billing transformation really that difficult? Yes, it really is

Why is billing transformation hard? Could it have anything to do with the trepidation associated with ripping out the single platform that manages the largest amount of monthly billables throughout the entire company? Might it be the other failed billing transformation attempts that left a chilling effect for technical leaders? Could it be because it's hard to walk away from a significant capital investment? Or could it be the ongoing, year-after-year billing "optimizations" that were required so billing could cater to each business's "unique" differentiators?

How can business leaders walk away from a financial cornerstone such as this? How can they redirect the spending so that the company is better positioned to support new charging models without tearing out the underlying billing foundation and placing the company at risk? And is this level of change really required?

In this brief, we'll answer these questions through the revealing lens of telecommunications and offer alternative considerations for business leaders, regardless of industry, who are looking for billing solutions that better position their company to manage the digitalization of services and the associated billing road map.

Why is change needed?

The advancement of true on-demand access to services and products requires businesses to reimagine their customer experience, redefine offerings, reinvent business models, and reprogram sales channels. Evolving customer expectations and new digital revenue streams have potential implications for the billing ecosystem; they require new capabilities and support for offer-centric and/or customer-centric billing.

In the 1960s, when computing was in its infancy, telecommunication providers were early adopters of main frame computers. With the growing volume of wireline calls, large telecommunication providers implemented stand-alone billing platforms. Despite the cost and the limited scalability and processing power, this automation provided faster, more accurate, and efficient billing operations than previously experienced. In the 1980s and 1990s, as main frames were replaced with smaller and faster computers, billing applications were integrated with a variety of applications supporting all areas of the business. Billing became increasingly complex and highly customized, functioning as the central application for a variety of customer services and operations.

When the wireless industry began to grow exponentially, trends shifted to include **even more** customer information and logic in billing applications. Telecommunications providers began to think of billing as *the* platform to manage the customer relationship, making billing even more entrenched as the focal point.

And with this, billing became the *central focus*. Heavy "system-to-system" integration to billing further served to entrench the billing platform as the hub of the operational wheel. **This laid the foundation for monolithic billing platforms**, which, over time, would become just as critical to telecommunication operations as the wire the companies installed in the ground and the wireless towers they stood up.

Today, telecommunications providers are increasingly offering value-added products to augment their connectivity services. They are packaging innovative cross-channel content and elevating personalized customer experiences, while striving to enhance their operational efficiency. For instance, determining customer eligibility for products and services, a process once largely managed by billing, now has moved closer to the network edge.

This movement away from billing, to real-time decisioning at the network edge, shifts the focus away from billing and necessitates a reevaluation of the billing architectural approach. Further, the degree and speed with which digital transformation is occurring compels companies to reexamine the billing road map and the path forward to rightsize the billing footprint.

Traditional approaches no longer meet customer expectations, which are evolving in the following ways:

FROM sell-to and sell-through go-to-market	**TO** ecosystem-enabled and platform-centric offerings
FROM managed customer experience offerings	**TO** increased customer autonomy
FROM tariff-centricity with low price transparency	**TO** subscription-based models with high price transparency
FROM tech-driven products with low configuration	**TO** customer-driven products with flexible configuration
FROM rigid contract terms and disaggregated billing	**TO** flexibility in contracts and bundle plans enabled by split billing
FROM choppy channel experience	**TO** omnichannel engagement, including guided self-care
FROM disengaged customer experience	**TO** personalized experience driven by behavioral insights

Why is change hard?

In the course of time, telecommunications companies recognized the imperative for strategic evolution to remain competitive in an environment marked by rapid go-to-market strategies, innovative product offerings, and a commitment to superior customer experience. To keep up with the lightning-fast pace of change in the marketplace, they needed to unleash innovative products, dazzle customers with splendid experiences, and dance with agility in the billing ballet.

Picture this: Billing, once the star of the show, is now relegated to the role of a "very sophisticated calculator." Modules that used to be billing's trusty sidekicks, like the product catalog and customer management, have embarked on solo adventures. Modules like these have ever-growing complexity in support of multifaceted customer offers, and the corresponding logic is being transitioned outside of billing. This change requires billing to share the spotlight, pirouetting with ever-evolving demands.

Telecommunication providers understand that change is tricky. Change is Hard, with a capital H! But why?

First, a billing metamorphosis is no small feat. Billions of dollars currently flow through the legacy billing systems, content with their routine. The telecom executives, looking at this reliable revenue, ponder, "If it's not broken, why fix it?" They fear putting this revenue at risk in the perilous journey of transformation, and who can blame them? This sentiment is corroborated by a Gartner survey indicating that 59% of CIOs perceive digital initiatives as protracted processes, with 52% asserting a delayed realization of value.[1]

Several other factors contribute to the formidable nature of billing change:

- **Heavy financial investments:** Historically, telecom companies have invested significantly in data centers, hardware, and system integration, resulting in substantial "tech debt." Transitioning away from this model is a complex task, even with the advent of vendor-hosted environments.
- **Billed revenue dependencies:** Monolithic billing platforms are integral to the collection of the majority of billed revenue. Thus, transitioning from one platform to another entails a meticulous accounting process to safeguard financial stability.
- **Complexity of billing systems:** Telecommunications companies operate intricate billing systems that have evolved over an extended period. These systems, often customized and integrated with various other systems, present challenges and risks associated with any modification or introduction of new features.
- **Training and support:** The introduction of new billing processes and systems necessitates comprehensive training for employees and customer service representatives. While crucial, this training may induce temporary disruptions in service.
- **Resistance to change:** Employee apprehension toward billing changes, driven by concerns over job security, increased workloads, and the unfamiliarity of new systems, poses a formidable challenge. Managing this resistance is essential for a seamless transition.

Despite the inherent difficulties, the imperative for telecom companies to undergo billing transformation remains. The strategic approach to this change is pivotal, helping to ensure alignment with business objectives and minimizing operational disruptions. In navigating this complex landscape, a judicious blend of foresight, planning, and adaptability is requisite. As inputs for these approaches, we offer three options for consideration.

Transformation option 1: "Break the monolith"

Finding the right balance of foresight, planning, and adaptability for a complex billing transformation can seem daunting. One approach a company can take is to "break the monolith." This option can be tackled incrementally to strategically minimize the challenges and uncertainties inherent in a billing transformation. Based on the organization's level of risk tolerance, leaders can choose to set their own pace to decouple non-billing capabilities step by step, with the end goal of creating a more modularized architecture. By compartmentalizing the billing ecosystem, the organization can then redirect attention and resources toward billing modernization efforts.

Successful execution of this option requires a leadership team to:

- Ensure they have a thorough understanding of the web of capabilities their current system supports (e.g., online bill payment processing, online sales, online account maintenance).
- Define a clear road map of which capabilities will be decoupled and which alternative systems will assume the responsibility.
- Align on which go-forward components of the billing system to invest in for modernization.
- Coordinate with the existing vendor to enable billing modernization efforts and third-party integrations for non-billing functions.

A vital assumption underlying this choice is that the current billing system aligns seamlessly with the company's vision for modernization. If the existing billing vendor does not have a strong modernization road map, or misaligns with the company's transformation goals, an alternative solution for "breaking the monolith" is to introduce a lightweight "sidecar" biller to facilitate the "exit strategy." The goal of a sidecar biller is to support next-generation, greenfield offerings while the legacy biller supports traditional offerings for a period of time or for the foreseeable future.

The potential benefit of this option over a traditional "rip and replace" is to help avoid wholesale customer data migration and minimize disruption to the legacy business, while the sidecar biller grows organically with the company's greenfield offerings. (It should be noted that successful introduction of a sidecar biller requires the business and technology functions to be ready for sustained operations in a dual-mode billing ecosystem.) This approach can enable businesses to implement new innovative products and services without adding to tech debt and increasing dependency on the aging legacy application.

Transformation option 2: "Take the plunge"

While the option of breaking up a monolithic billing system into more manageable pieces may provide some level of comfort and convenience, some companies may prefer the challenge of effecting a complete departure from their existing billing platform. Making this leap can offer considerable benefits to an organization looking to leverage a new, state-of-the-art platform. There are two approaches to this exit strategy, each with distinct pros and cons.

Growing greenfield option

This approach allows the telecom provider to implement a new billing infrastructure—for example, cloud-based, vendor-hosted Software as a Service (SaaS)—for new products or service offerings, such as usage metering and compliant revenue collection. It may also help manage upfront capital costs. Over time, the telecom provider can transition services from the existing billing platform to the "growing greenfield," which represents a slimmer version of the large legacy billing footprint. To achieve this, the telecom service provider must be able to conduct a thorough assessment of its existing billing vendor's offerings, identify the next-generation capabilities that can be provided by a lightweight biller, and carry out a vendor assessment to onboard a modern sidecar biller.

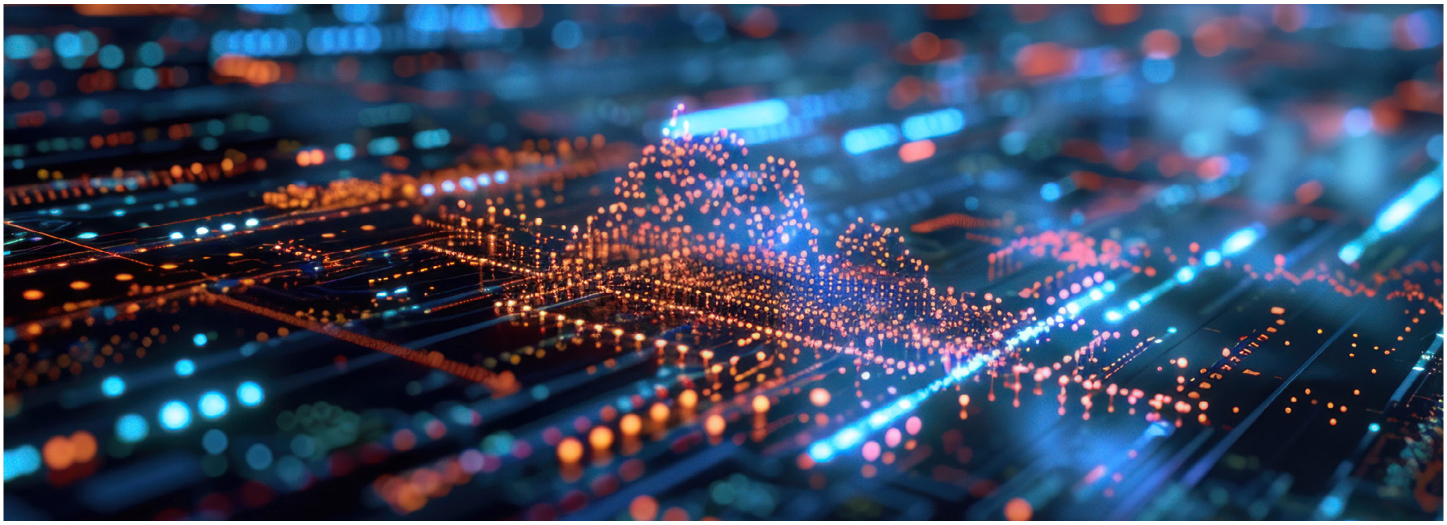
One significant potential benefit of this approach is avoiding migrating existing customers from the old billing platform to the new billing platform in totality. The introduction of new products or services is handled via the sidecar biller instance. This offers a new path for supporting multiple use cases by implementing the out-of-the-box capabilities of the new billing system.

This process does involve a very high degree of business and technology preparation. An additional challenge for this approach is running the legacy billing platform and optimizing the new greenfield billing instance in parallel. A significant amount of coordination over time for business processes and technology synchronization is required, as is a customer migration over time.

Rip and replace option

This approach involves a full transition/transformation from current billing to new, modern billing, and it requires a customer migration from the old system to the new system. Analysis of all system interfaces, end-to-end design impact, and process changes will also be essential for a successful transition. This approach has a very high business and technology impact and requires a longer preparation timeline and evaluation of every aspect of the business, from *As-Is* to *To-Be*.

However, the advantage of this approach is that the actual billing migration can occur rather quickly once all of the analysis and system integration is completed, placing the business on a platform that should be highly scalable for the future. And while there will still be a vendor dependency, the collaboration will be in support of new, cutting-edge billing features.



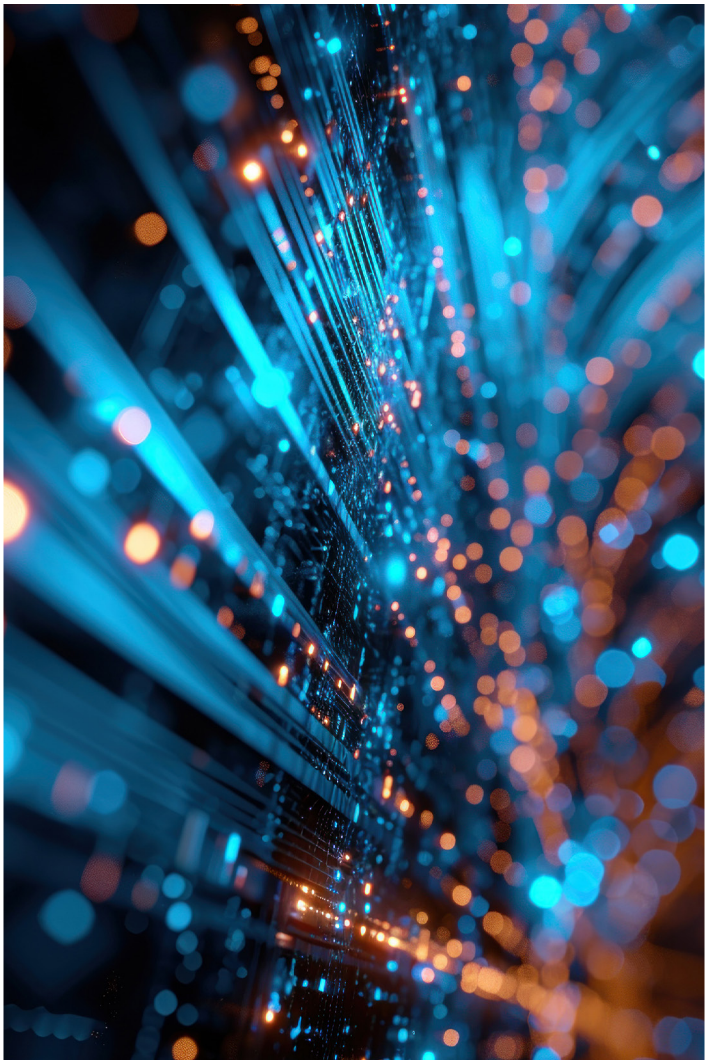
Transformation option 3: "Keep and evolve"

Even with multiple options and an evolving technology stack, businesses may choose to retain their existing system if they have already invested heavily in it and believe that making incremental changes going forward is ultimately the most cost-effective strategy.

Businesses having good working relationships with their existing billing vendors may choose to upgrade or migrate to another version (e.g., cloud-based) with the same billing vendor—the expectation being that existing integrations will be minimally impacted. However, it is not uncommon for upgrades to require interface updates. Trusted vendor partner relationships are an important consideration for future commitments, and transparent conversations about the real cost and time for upgrades or migrations to cloud-based options are a must.

Reviewing the short-term and long-term vendor road map is key to understanding if next-generation products and services will be supported in the current billing application—or if migrating to the vendor's next billing version is the best option. Companies should also consider if there are options to modify or influence the current and future road maps.

Ultimately, organizations opting to "keep and evolve" should bear in mind that a billing upgrade can be as significant in terms of time and cost as a migration to a new billing platform. Careful planning and detailed analysis are required to help reduce risk and minimize timeline extensions and cost overruns.



Every journey will be different

As market demands, customer expectations, and regulatory requirements change, so, too, must the billing application. The sizes of billing footprints vary, as do the approaches for the evolution of billing. And while the trends of new monolithic billing implementations are waning, the ramifications of these colossal applications remain. Business leaders' uncertainty and apprehension around "ripping and replacing" an entire billing platform is understandable, given the financial reliance on billing. Yet one imperative is clear: A successful billing transformation journey must start with thorough evaluation of each option's advantages and disadvantages in the context of the company's business strategy.

A compelling path for some is the deliberate breaking of the monolith to introduce sidecar billing options that enable implementation of new products and services without adding to tech debt and increasing dependency on the aging legacy application.

For others, a separation or migration from the existing platform is more strategically attractive and/or financially expedient. A measured approach to taking this plunge is growing the greenfield billing footprint over time. This can enable companies to manage risk and shift their billing investment from a capital expenditure to an operational expense, depending on vendor charging models that expand or contract based on the number of billed services. The SaaS model provides application and environment scalability over time and could help reduce financial exposure compared to a "rip and replace" approach.

Finally, a “‘keep and evolve” strategy may make the most sense for some companies, particularly when supported by productive partnerships with billing vendors. After all, when both parties are aligned on short- and long-term goals, the company-vendor collaboration can move like a well-choreographed ballet.

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Endnote

1. Gartner, "Gartner survey of over 2,000 CIOs reveals the need to accelerate time to value from digital investments," press release, October 18, 2022.

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