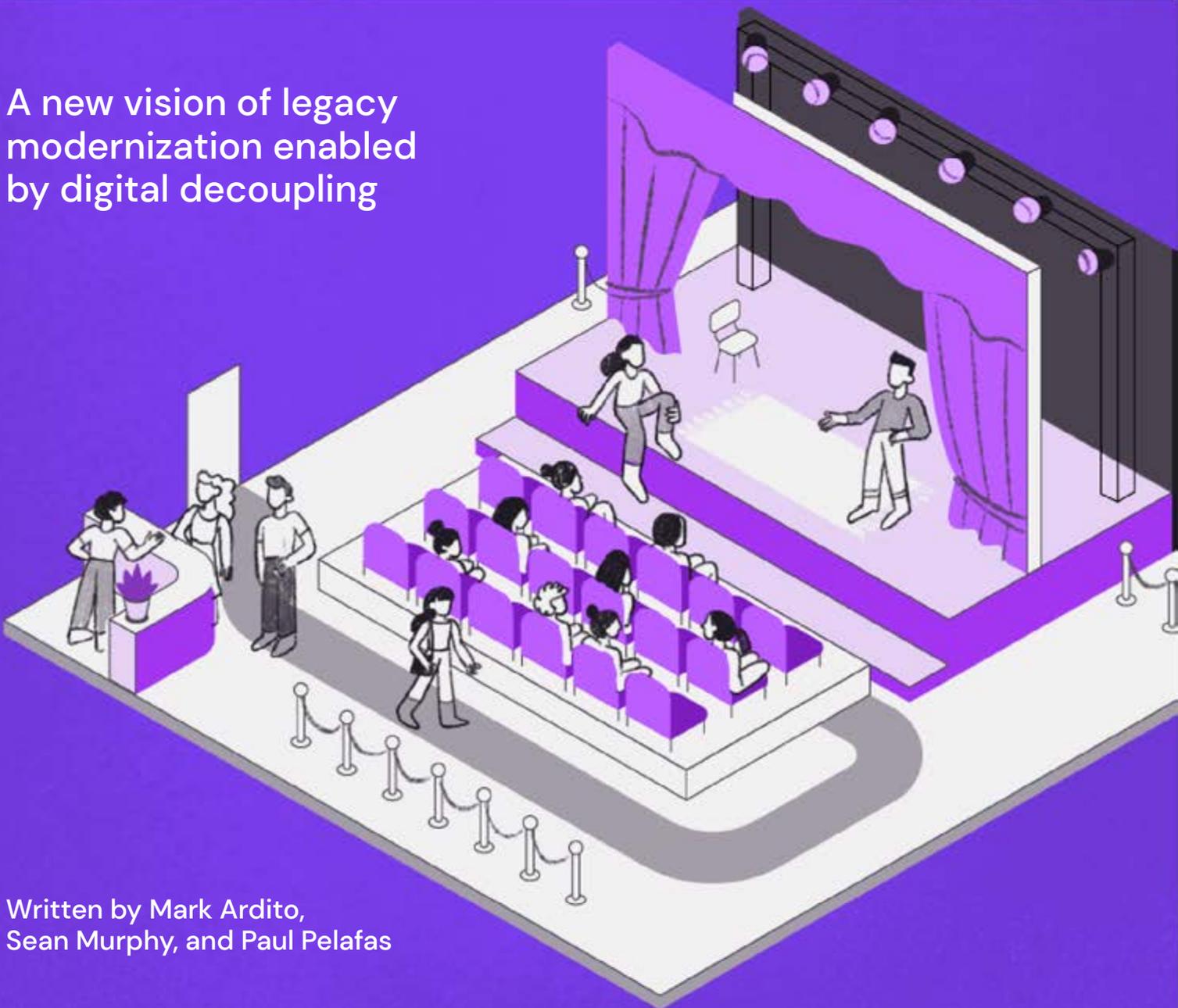


KIN+CARTA

# Flipping the Script

A new vision of legacy modernization enabled by digital decoupling



Written by Mark Ardito,  
Sean Murphy, and Paul Pelafas

# Putting on a world-class digital show

Traditional front-end/back-end is holding enterprise organizations back. To put on a world-class digital show, you need to transform the way you visualize and practice legacy modernization.

Think about *Hamilton*, the stage musical. It's a global phenomenon because audiences come out of performances not just satisfied or content, but blown away. They tell everyone they can about their amazing experience—the production, the songs, the visual spectacle—and it stays with them long after the performance is done.

This is the level you're reaching for when it comes to the customer experiences offered by your products and services. But your stage show probably looks very different right now...

Your backstage is in chaos. You have competing business initiatives and cloud providers influencing your IT strategy. You have outdated core systems causing issue after issue. You have people copying and pasting things from spreadsheets because your processes are disconnected and fragmented. New vendors and new software capabilities are coming to market constantly—all of which you have to explore and understand if you want to stay relevant.

**How do you manage this noise, meet the needs of the business, stay relevant, and evolve your technology architecture so that you can deliver the kinds of experiences audiences expect?**

You can't stop the show. Even if you're not producing Hamilton-level performances, you still have customers to serve and business goals to meet. You need to focus on refining and upgrading your backstage while keeping the story on your frontstage connected and compelling.

What's more, senior leaders tell us that they struggle to find the words to help non-technical stakeholders grasp the importance of updating outdated architectures. We need a fresh way to talk about and achieve legacy modernization—one that is more audience-centric, more mindful of internal and external user needs, and better encompasses the need for multiple digital and physical touchpoints.

By visualizing your frontstage and backstage holistically, as a single connected narrative, you can start to tackle the challenges of legacy modernization iteratively, and digital decoupling is the process that allows you to bring this to life.

This approach gives your customers—or audience—seamless and compelling experiences while you get breathing room behind the scenes to update and improve complex architecture.

In this 3-act guide, we explore frontstage-backstage thinking alongside digital decoupling and the methodologies that can help you put on a world-class digital show.

Digital decoupling is a legacy-modernization technique that enables large, often well-established organizations to present a unified online experience to their users, take full advantage of their data, innovate safely, and compete effectively with digital natives.



**“This is not a case of, ‘Should we do this?’  
It’s a case of, **you can’t afford not to do this.**”**



**Mark Ardito**  
Chief Technology Officer  
Kin + Carta

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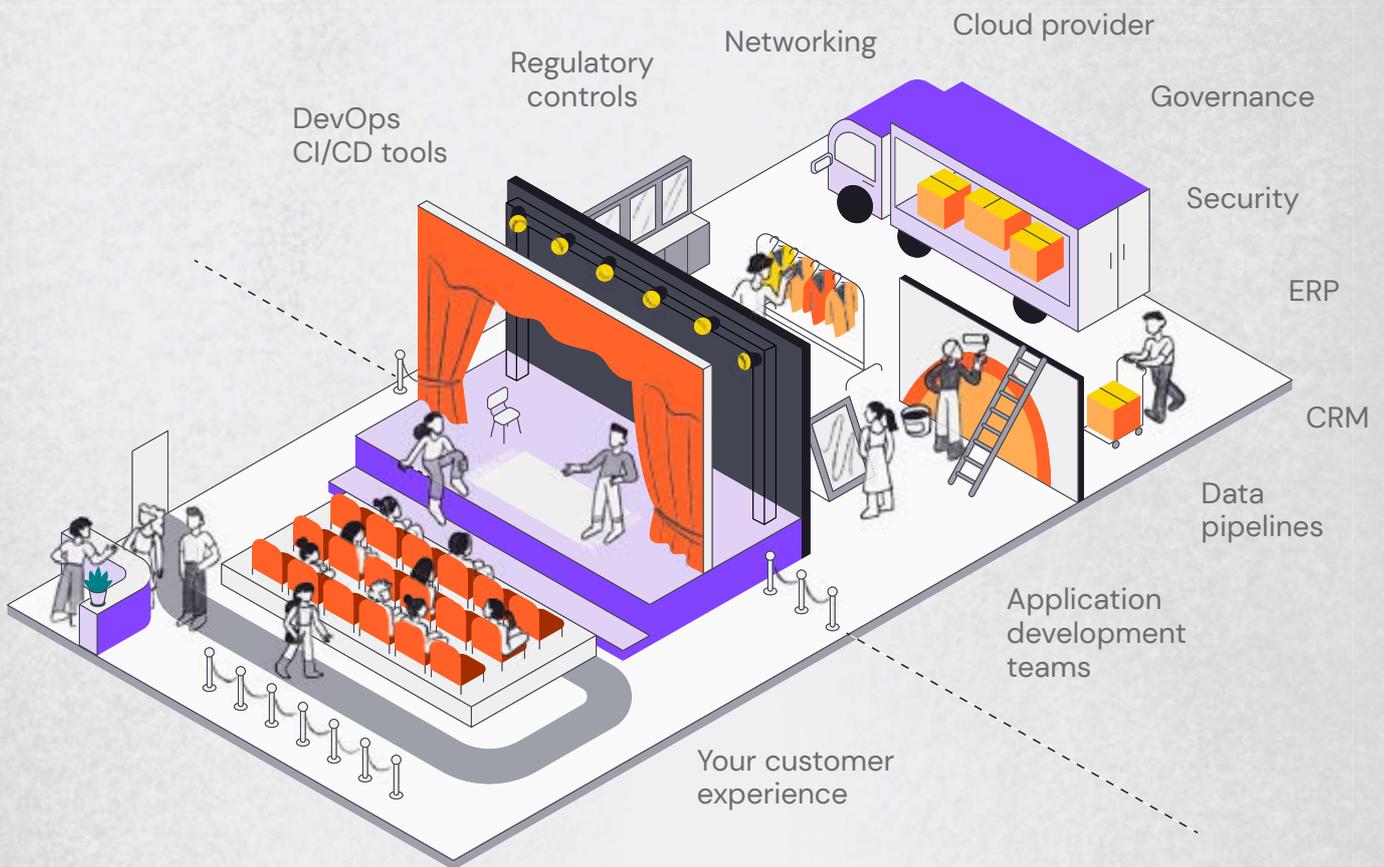
ACT 1:

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# Setting the stage

We need to change the way we think about enterprise architecture. By visualizing your organization as a **stage show**—with key elements and processes across the front and backstage—it's easier to talk about (and plan for) legacy modernization.





**Think of this stage set as your enterprise organization.**

You have the familiar backstage/back-end tasks performed by different teams, all aiming to present something meaningful to the audience. Then we have the stage/interface itself, where the production is presented to the public. The audience/users are out front expecting an engaging and immersive experience.

But there’s something here that doesn’t work. Maybe the divide between front and backstage is broken and this means customers can see parts of the underlying systems that shouldn’t be visible. Or worse, they feel like they are watching three different performances at once—a three-ring circus of mismatched applications competing for their attention. They are frustrated, confused, and they may walk away from the performance (and your organization).

Digital decoupling separates your user experience from your back-end processes, adding an abstraction layer—or curtain—that enables you to control how customers interact with your organization.

Typically systems of record (backstage) operate on quarterly release cycles. This means long development timelines, where organizations must take systems offline to push new code to production. A decoupled architecture means your backstage can go up or down for maintenance windows while the frontstage stays up and resilient at all times. This is what customers demand today, and it means your enterprise can modernize while still putting on a cohesive and connected show. It also means that new software releases aren't bound to set times in the year—fixes or upgrades can be made whenever and wherever they are needed.

Digital decoupling is the best and most efficient way to transform the customer experience and make a **significant business impact**. What's more, it's far quicker and more cost-effective than rebuilding systems from the ground up.



## What is digital decoupling?

Digital decoupling is an approach by which organizations can separate their frontstage and backstage. While legacy systems continue to operate, digital decoupling connects backstage systems to the frontstage experience through modern interfaces using APIs and microservices.

This approach is a cost-effective and low-risk means of legacy modernization. It uses an abstraction layer—or curtain—between your front and backstage (your users and your processes) helping to craft world-class experiences for customers interacting with your organization.

Using digital decoupling, an enterprise can rapidly build a scalable, flexible, and resilient architecture—all while putting on a compelling digital show. This enables a traditional player with complex legacy systems or vendor lock-in to take advantage of the latest digital innovation, allowing them to compete on equal terms with digital natives.

## What are the benefits of digital decoupling?



### **Flexibility**

By separating core processing systems from frontstage experiences, organizations can quickly adapt to changing market trends, regulations, and customer needs. They can innovate and introduce new features, interfaces, or channels without having to overhaul the entire system.



### **Agility**

With a decoupled architecture, enterprises can respond faster to changes in technology or industry standards. They can adopt new technologies and integrate them into their systems without disrupting front-end experiences the core processing.



### **Improved customer experience**

By focusing on front-end experiences, organizations can shape user experiences to reflect customer needs and preferences. This allows them to offer more personalized and relevant interactions, which can lead to increased customer satisfaction and loyalty.



### **Scalability**

Decoupled systems allow institutions to scale their back-end processing capabilities and front-end experiences independently. This means that they can expand their business, introduce new products, and scale independent domains where demand is high. It means they can support more customers without having to worry about the impact on the other parts of their systems.



### **Cost-effectiveness**

Separating core processing systems from front-end experiences can lead to reduced costs in infrastructure and maintenance. Organizations can invest in their core processing capabilities without having to worry about the expenses related to updating front-end interfaces and vice versa.



### **Easier third-party integration**

Decoupled core processing systems make it easier for enterprises to integrate third-party services, such as payment gateways, analytics tools, or artificial intelligence solutions. This can help them to build a foundation for innovation, stay competitive, and offer a wider range of services to their customers.



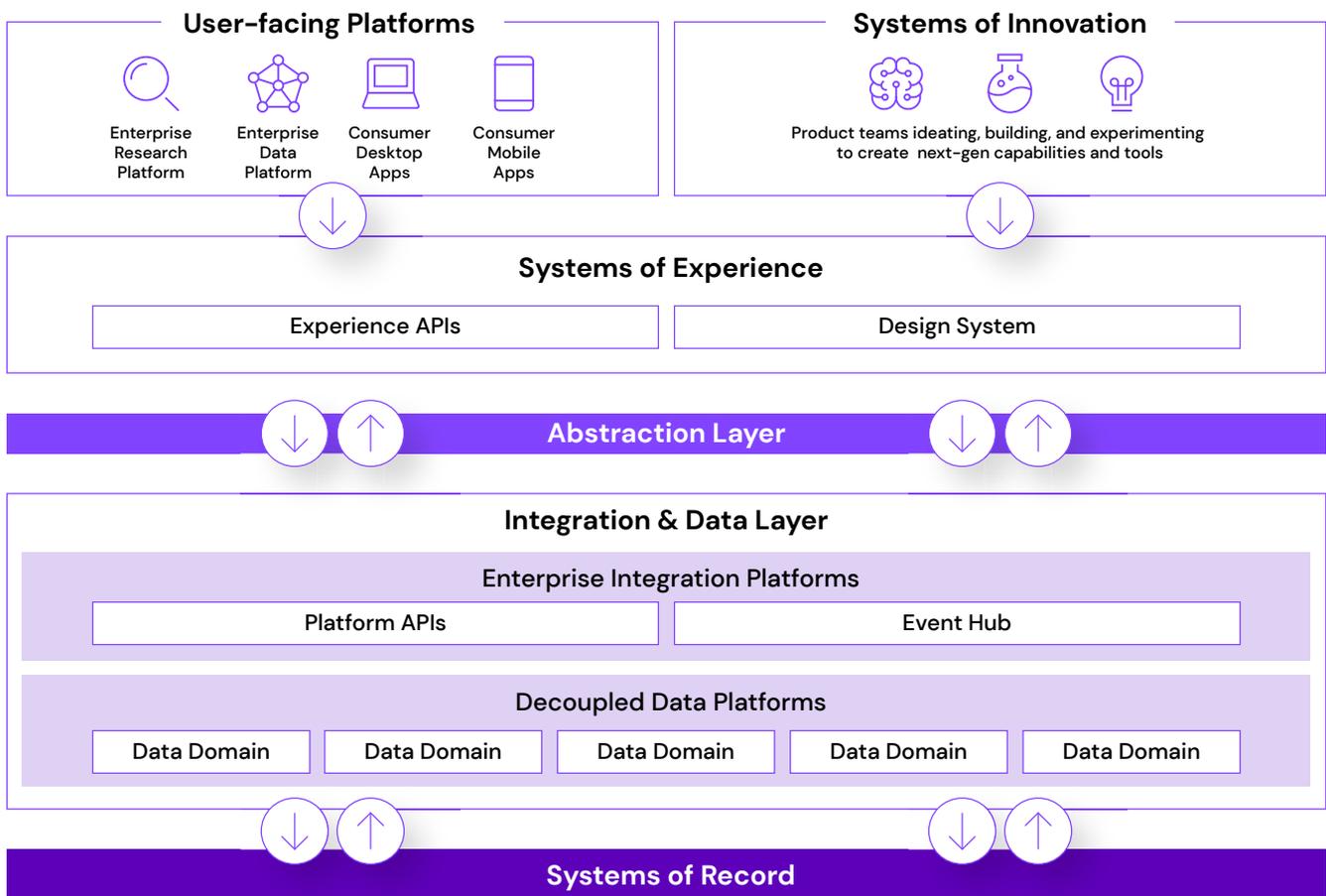
### **Breaking free from vendor lock-in**

Digital decoupling frees enterprises from being tied to a handful of vendors (and the same ecosystems that shape their competitors' approaches) allowing for more innovation and scalability. This removes the need for extensive customization and avoids the disappointment of big functionality promises that are rarely delivered.

## A spotlight on enterprise architecture

An abstraction layer separates high-velocity digital systems from much slower and critical back-end systems.

- **Systems of innovation:** Where new tools and practices are implemented.
- **Systems of experience:** How consumers or customers interact with your business.
- **Abstraction layer:** This decouples the top layers from the complex systems of records, unifying user experiences.
- **Systems of record:** The layer that encompasses everything that keeps the business running.



Investment is often focused only on the top layer, and with so much attention on emerging tech like GenAI, it's easy to get caught up in the next shiny innovation project. The problem with this narrow investment focus is that it ignores other critical layers. Funding innovation on top of a bolted-together, possibly broken, system of record, for example, can cause huge challenges down the line.

Digital decoupling adds a layer that allows you to address legacy modernization and integrations and develop a strong foundation while providing space for innovation. What's more, it supports iterative updates so that a company doesn't have to rip everything up and start from scratch.

This approach is foundational for legacy organizations that want to meet the challenges of a fast-moving, technology-focused future. Once a decoupled model is in place, it can be reutilized time and time again **to evolve a company's digital architecture and guarantee consistent customer experiences.**

Simply, digital decoupling is the best and most efficient way to transform the customer experience and make a significant business impact. What's more, it's far quicker and more cost-effective than rebuilding systems from the ground up.

ACT 2:

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# The art of digital decoupling

Digital decoupling is a **continuous, iterative process**. It requires leaders to combine a big-picture view of their enterprise architecture needs with an understanding of the methodologies and processes that will bring their vision to life.





**My advice to leaders is to be courageous. Past decisions about architecture and solution providers don't have to dictate your future. Digital decoupling can transform your CX and provide a foundation for innovation at scale.**



**Sean Murphy**  
VP - Strategic Pursuits  
Kin + Carta

While digital decoupling does require an investment of time and resources, it's far less disruptive and expensive than a ground-up approach.

However, to drop the curtain in a way that adds meaningful value to customers and to the wider business, enterprise leaders should develop an understanding of key decoupling concepts and approaches.

Though an expert partner is usually the best way to tackle a digital decoupling project, this knowledge can help to shape strategy around legacy modernization and make sure that leaders are focused on the areas where they can make the biggest impact.

## Headless architecture vs digital decoupling

Digital decoupling and headless architecture may look similar from the outside, but it is important to understand the differences between them.

**Digital decoupling** refers to the separation of front-end and back-end systems in development. This means that the presentation layer (front-end) and business logic are separated from the data storage (back-end), communicating through an abstraction layer. This approach allows for more flexibility and scalability in the development process.

**Headless architecture is also decoupled but is completely agnostic when it comes to the front-end.** This allows for more modular and flexible development, as different front-end frameworks can be used with the same back-end system. Typically, you would use a headless architecture when a contracted software already has all the necessary features and capabilities, making it impractical and costly to replicate.

A decoupled architecture has significant benefits for legacy modernization, including:

- Empowering more rapid design iteration
- Reducing publisher and developer dependencies
- Delivering better performance
- Allowing easier third-party integrations
- Facilitating simpler deployment
- Enhancing security

## Strangler pattern: A key plot point in digital decoupling

In the past, the only way to modernize a legacy system was to build a new system from scratch (over a period of years) and then to make an abrupt switch from old to new. This was an expensive, disruptive, and high-risk process that often confused customers and led to serious change-management challenges.

### What's in a name?

The term for this approach was coined by software expert Martin Fowler. On a visit to Australia, he saw that strangler fig seeds develop in the upper branches of established trees and gradually work their way to the ground.

When they reach the soil they take root and eventually strangle the host tree. This seemed like the perfect parallel for the process of rewriting critical systems.

The strangler pattern is a software development approach that focuses on improving the most valuable parts of the code first—those that have the greatest impact on overall user experience or organizational efficiency. As new code is introduced, more and more pieces of the legacy codebase are replaced, and the legacy code gradually decreases over time.

It can also be used to tease out necessary features and functionality from existing solutions, prioritizing feature sets that users interact with the most.

This approach reduces risk, meaning organizations can prioritize their most impactful areas of change first. It also avoids jarring, large-scale changes, which can confuse and overwhelm customers. Instead, its execution is slow and methodical, with small iterative changes over time.

The strangler pattern is a vital component of digital decoupling. Code changes on the back-end can be done independently of the front-end, enabling seamless customer experiences. However, the front-end sees benefits from code replacement because the interface between the two has remained intact.

## Dramatic impact: Unlocking value with thin-slicing

Thin-slicing, like the strangler pattern, is a legacy modernization method. It involves identifying and focusing on the most valuable portions of code first. However, in contrast to the strangler pattern, thin-slicing encompasses the entire stack, including both front-end and back-end components. This approach allows enterprises to unlock value by building a minimal but robust strand of end-to-end functionality.

Thin-slicing solves a common leadership challenge around digital decoupling: **time**. This approach demonstrates business impact quickly, delivering successive small parts of each step of the user journey.

With thin-slicing, you can quickly deliver proof of concept, and then iterate on it to achieve a specific and measurable goal. This iterative development mitigates a lot of delivery risk. To bring thin-slicing to life, break out the thinnest possible cross-section of functionality that can be tested with the audience. Learn and adapt, then repeat.

## Case Study

# Reimagining B2B customer experiences

### **The challenge:**

Gordon Food Service (GFS), the largest family-operated broadline food distribution company in North America, wanted to enhance B2B ordering experiences to meet evolving expectations and stay ahead of market disruptors. They partnered with Kin + Carta, to bring their vision to life.

### **The solution:**

We revamped and reimagined the back-end for core GFS ordering processes. This allows teams to incorporate feedback from clients on a modern infrastructure that helps to increase client satisfaction and brand loyalty. The new architecture allows for dynamic resource scaling and seamless user experiences without being visible to the client—a truly decoupled solution.



## The results:

- **Increased customer satisfaction and loyalty:** Customers have access to an improved search and user interface, with fast implementation of new requests through an iterative feedback loop.
- **Scalable and flexible digital platform:** The customer-facing ordering application delivers high availability and virtually unlimited scalability.
- **Robust security and disaster recovery:** The cloud infrastructure offers robust security measures and disaster recovery capabilities, protecting customer orders and order histories.

**2,920**  
deployments  
a year

**99%**  
improvement  
to customer  
feature requests

**1hr**  
workload  
portability and  
redemption

“Kin + Carta brought a customer-driven development methodology that helped us build what our customers actually want, instead of what we thought they wanted.”

**Tom Pearce** | IT Manager, E-Commerce at Gordon Food Service

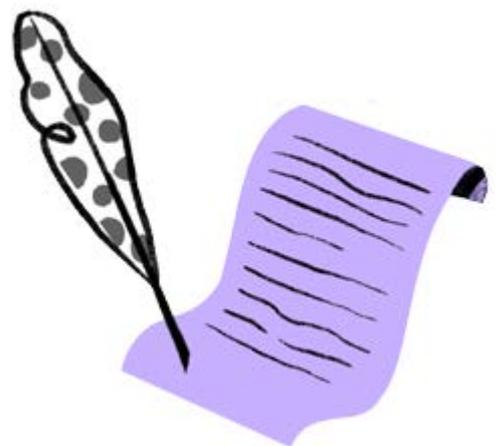


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# Scripting your digital decoupling journey

Digital decoupling is a process that empowers organizations to take a step-by-step approach to change. It starts with a clear understanding domains of data and choosing the right partner to help shape what's next.



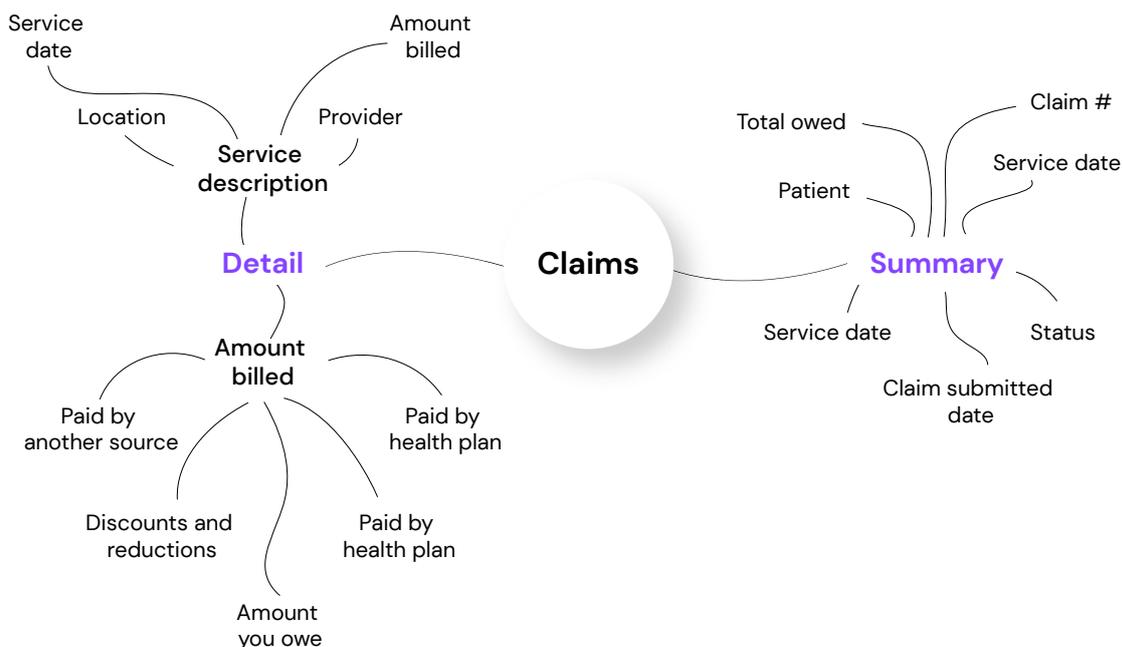
## Revealing domains of data

You're ready to transition to frontstage/backstage thinking, but it's not as simple as hitting go. You can't simply peel back the top layers of your architecture and reveal your system of record. Instead, the logical first step is to carefully map out domains of data.

Domain-driven design involves creating software that aligns with a business and its core domains. By understanding how domains relate to an organization, it's possible to develop more valuable user experiences. Often, the underlying systems of record can't be altered, but using an event-based structure allows certain data relevant to a particular domain to be entrusted to teams who can oversee that domain.

Carefully mapping data domains can save time in the future by reducing the need for revisions. This task involves breaking down the components of your application into separate, self-sufficient domains. These domains are controlled by a distinct set of code and do not rely on external data for organization, storage, and manipulation. Dividing the application into domains is part art and part science, and involves analyzing complex code.

It's important to model your data domains with flexibility in mind. The better you understand your domains, the better able you are to tailor customer experiences. Your domain mapping can also set you up for future success as it lends itself better to data analysis and GenAI innovation.



*An example visualization for how a healthcare insurer could structure their domains of data based on the needs of customers as well as the business itself.*

## Choosing a decoupling partner

A digital decoupling initiative requires deep technical knowledge, and it's essential to connect with a technology partner who balances strategic and engineering know-how. The key is connecting with experts who understand your goals, listen to your needs, and can help you map out a journey from where you are to today to where your enterprise needs to be in 2, 5, or even ten years time.

### The right partner will be able to:

- Fill multiple roles, including strategist, solution architect, software engineer, UX/UI designer, and project manager.
- Collaborate with you in the planning and design of your digital decoupling initiative.
- Deliver expert technical insights.
- Work alongside your in-house teams to implement the plan.
- Upskill your staff so that they can take ownership of initiatives where necessary.

At Kin + Carta, we help you imagine your digital future—on the front and backstage. Our experts have helped enterprise organizations around the globe shape their digital decoupling journeys and put on award-winning customer shows.

# The show must go on

Frontstage-backstage thinking solves what seems like an impossible problem—improving the show your customers see when they interact with your organization while keeping the stage lights on and the performance running smoothly.

It empowers an organization to work behind the scenes to gradually but impactfully improve every part of their digital offering and deliver the types of experiences that grow customer loyalty. What's more, as new systems slowly replace legacy architecture, an organization becomes increasingly able to embrace innovation—laying a technical foundation that evolves as they do.

You might think that this won't work for you. That your industry is too regulated. That your business is too complex. Or that this process is too expensive. Or too slow. In our experience, none of this holds true. We've helped highly complex organizations to drop the curtain between their front and backstage, and this truly is an investment in your organizational future.

This isn't a groundbreaking new discovery or a brand-new innovation. But it is a fresh way of looking at a tried-and-true transformation process that delivers for enterprises and customers. Organizations consistently struggle with these types of evolutions, and this measured, iterative approach combined with the right expertise can ensure they succeed in implementing change that delivers measurable value.

**Your customers are looking for a Broadway-level experience. We help you bring it to life.  
Get in touch to talk digital decoupling and how it could help you to exceed your business goals.**

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Visit [kinandcarta.com](https://kinandcarta.com) to learn more

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Chief Technology Officer  
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Mark Ardito is a seasoned IT Executive with 20+ years of experience specializing in transforming large enterprises to be on the cutting edge of technology. Mark's proven track record with cloud strategy, cloud migration, and digital transformation leadership makes him a leader in the Fortune 100 in this space. As the Chief Technology Officer at Kin + Carta, Mark is on a mission to ensure that organizations make pragmatic and meaningful strategic decisions around data and AI, cloud-native technology, and customer experiences.



**Sean Murphy** [in](#)  
VP - Strategic Sales  
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With a background running luxury hotels, Sean Murphy knows a thing or two about creating unforgettable customer experiences. As the VP of Strategic Sales at Kin + Carta, Sean helps define strategies and offerings that help our clients transform their organizations. Working with some of the world's most notable Fortune 500 firms, Sean has helped them shift their mindsets around traditional IT from a cost center that keeps the lights on to a hub for growth, innovation, and long-term market differentiation.



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Paul Pelafas is a technical director in Kin + Carta's cloud service line having helped organizations reach their business and technology goals for nearly 15 years. He has experience across many industries including insurance, healthcare, finance, and information technology. He specializes in leading high performance and large scale teams in enterprise settings that help tackle organizations' most critical and strategic objectives. His background includes engineering, DevOps, mobile, SRE, technical strategy, and program execution.

Kin + Carta is a global digital transformation consultancy.

We support forward-thinking businesses with a focus on growth, inclusivity, and sustainability. We do this by creating Intelligent Experiences, powered by data and built in the cloud.

Our 2,000 consultants, engineers, and data scientists bring the power of technology, data, and experience to the world's most influential companies. Together, we help organizations accelerate their digital roadmaps, rapidly innovate, modernize systems, empower teams, and optimize for continued growth.

Our triple-bottom-line focus on performance, people, and planet drives our success, and we were the first certified B Corp on the London Stock Exchange.

# We're Kin + Carta and we're building a world that works better for everyone.

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