Building a Digitally Resilient Enterprise

How enterprises can develop the technological muscle to mount a quick and robust digital response to challenges of any scale.

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A few months ago, it would have made little sense for an organization to invest valuable resources preparing for the highly unlikely possibility of a global pandemic.

But then, "highly unlikely" happened.

Modern technologies have been able to mitigate the impact to **certain jobs and sectors**, but the fast-moving crisis laid bare the inability of many organizations to adapt their digital infrastructure in a timely manner.

High-profile breakdowns included **the failure of many state unemployment insurance websites** to handle the sudden spike in new claimants. Similar technical shortcomings became quickly apparent in the digital portals for **stimulus payments** and **business loans**. The public sector is a notorious digital laggard, but many processes in **the private sector** were impacted as well.

The pandemic has highlighted the fact that simply digitizing processes is not enough to guarantee an ability to withstand all unknown events. To be truly **digitally resilient**, an organization must have the ability to efficiently append and amend its digital infrastructure in response to a changing landscape.

While crucial in the context of an exceedingly rare event like COVID-19, digital resilience is also measured by an organization's ability to respond to less-dramatic disruptions such as shifts in consumer habits, regulatory changes, or new competitive offerings. Indeed, the ability to maneuver and pivot in "normal" times is arguably *more consequential* than the response to a once-in-a-century disruption.

As we move through and beyond this current crisis, a sharp distinction will be drawn between those who embrace the tools and processes that contribute to digital resilience, and those who get left behind.

Being Digital ≠ Being Digitally Resilient

The term "digital transformation" has been a buzzword in the enterprise space **for at least a decade**, but being digital is not the same thing as being resilient. Digital resilience means having the technological and organizational muscle to adapt to whatever challenges or business problems come your way.

- **Digital transformation:** The adoption of digital technologies that increase efficiency, amplify productivity, or enhance services.
- **Digital resilience:** The sustained ability to mount a rapid, but robust digital response to evolving business challenges.

In addition to providing benefits like increased speed, savings, and scalability, digital processes are also inherently more malleable than "analog" processes which rely on manual checkpoints, physical assets (e.g., paper), and IRL transactions.

Digital transformation is a crucial step on the road to digital resilience, but not the last one.

THE FRICTION POINTS OF TRADITIONAL DEVELOPMENT

It's impossible for an organization to anticipate every potential disruption, but it can adapt to them. Advantages are secured by making changes faster than one's competition. Unfortunately, speed and flexibility are not terms most companies would use to describe their development function.

Studies have found that the average time to develop custom software is **4-to-12 months**, with some **85% of development projects going over schedule**. What's more, a recent **report from McKinsey** states that 70% of complex large-scale digital change programs don't even reach their stated goals. These are hardly reassuring numbers if one hopes to be able to

engineer around fast-moving events.

There are a variety of contributing factors that inhibit an enterprise's ability to enact digital change quickly. Some key problems are related to:

- **High fixed costs:** Enterprise development projects are potentially costly endeavors, and return on investment is hardly guaranteed. Indeed, statistically speaking, the larger a project, the higher the likelihood for failure: One **study** found that the majority of large-IT projects with a budget over $750,000 fail, with *failure rates reaching 93%* for projects over $10 million.
- **Skills shortages:** There is a limited pool of developers with the specialized technical knowledge and experience necessary to develop robust enterprise-strength software. Companies are forced to compete for this scarce resource, which drives up costs. One **recent study** found that 80% of IT and business executives were "somewhat concerned" with the IT skills gap at their organization, while 25% self-reported as being "very concerned."
- **Business and IT divides:** In most large enterprises, there's a significant gap between IT and the business on understanding the objectives and functionality of a technology build. This results in a lot of functionality getting lost in translation because of poorly defined (or poorly understood) requirements, leading to disappointing ROI.

Traditional development methodologies simply don't offer the speed and flexibility an organization needs to adapt in a robust, rapid, and cost-efficient fashion. Indeed, in a fast-moving disruption, the development barriers detailed above are often *amplified*. Fortunately a new breed of digital tools can mitigate the concerns associated with these barriers.

How resilient is your company?

Use this worksheet to determine how resilient your company is. Answer each question on a scale from 1 (strongly disagree) to 5 (strongly agree).

1. **Evolving landscape:** Everything changes, but our development function is perfectly capable of updating our digital infrastructure to meet our business' evolving needs.

2. **Digital adoption:** Digital transformation is an ongoing process, but we're content with our current pace.

3. **Speed:** If a sudden and unforeseen business problem came up, we are very confident that if we pulled all our resources, we could deliver a robust digital application from the ground-up in less than a week.

4. **Workforce:** We have no problem accessing the dev skills we need when necessary.

5. **Price sensitivity:** When it comes to priority digital applications, our organization is able to provide all the resources necessary to see the process through to completion.

6. **Maintenance and management:** While an initial build can be a lengthy process, making iterative updates and changes is painless and sufficient for our needs.

25 POINTS OR MORE
Congratulations, you're ahead of the digitally resilient curve!

18-24 POINTS
You're keeping up with industry standards for now, but are vulnerable to being overtaken by competition who take advantage of new development approaches.

17 POINTS OR LESS
You are extremely vulnerable to falling behind.

The Speed and Flexibility of No-Code

No-code is a category of cloud computing services that provides enterprises with a platform to develop, run, and manage applications without the complexity of managing all of the parts themselves. No-code application platforms provide all the tools needed to build complex custom software on a single unified system.

As the name implies, no-code removes the need to write code from the development process. That doesn't mean there's not any code anywhere in the system—no-code platforms simply provide a layer of visual abstraction between the code and the developer.

And this is where many efficiencies can be found that can lead to flexibility and an accelerated SDLC.

When you're writing code, what you're really doing is reproducing a set of commands over and over again. The commands happen in different ways in different parts of your program, but they are the same commands. What a no-code platform does is repackage these commands in a graphical form, allowing you to configure and manipulate them visually. The platform then executes those commands as if they were written in code.

By dragging-and-dropping components, creators can build programs without having to actually see—or write—any of the code themselves.

The application is configured visually from start to finish, and it runs entirely from the platform after it's deployed. Changes are made by simply logging in and reconfiguring the visual interface.
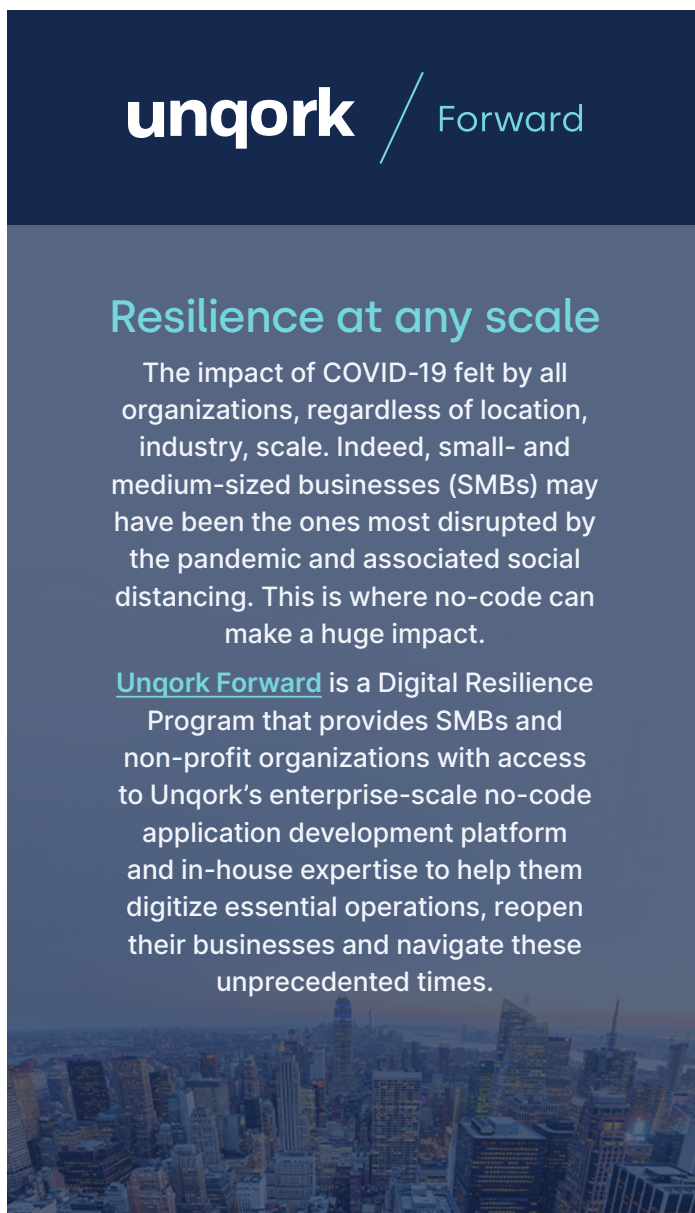
HOW DOES NO-CODE CONTRIBUTE TO DIGITAL RESILIENCE?

By shortening the bridge between business problem and technological solution, companies are able to rapidly adopt their digital infrastructure in a robust fashion. This unprecedented flexibility leads to:

- **Accelerated development cycles:** No-code automates many high-volume development tasks so new applications (both greenfield and brownfield projects) can be built and deployed much faster.

- **Improved collaboration:** The basics of these platforms can be picked-up with limited training, which means the development process can be opened to SMEs and other team members who can begin/edit/finalize projects independently of IT teams.

- **More efficient maintenance:** Large enterprises can spend up to 75% of total IT budget maintaining existing systems. One of the reasons is the complexity of making change in one area requires changes throughout the process. A no-code platform automates many of these cascading tasks and therefore reduces complexity of making changes.

- **Increased innovation:** By lowering the cost development in terms of resources, no-code platforms give companies the ability to experiment and iterate new ideas.

- **Flexibility around emerging events:** Whether it is a pandemic or disruptions of a smaller scale, no-code can provide organizations with a way to address events quickly.

No-code offers a powerful means for companies to mount a flexible and rapid digital response. However, none of this is useful if the response isn't robust and secure. State-of-the-art no-code platforms like Unqork are built with **security controls** and industry-specific templates, which allows companies to easily add proven features into their applications.

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Resilience at any scale

The impact of COVID-19 felt by all organizations, regardless of location, industry, scale. Indeed, small- and medium-sized businesses (SMBs) may have been the ones most disrupted by the pandemic and associated social distancing. This is where no-code can make a huge impact.

Unqork Forward is a Digital Resilience Program that provides SMBs and non-profit organizations with access to Unqork's enterprise-scale no-code application development platform and in-house expertise to help them digitize essential operations, reopen their businesses and navigate these unprecedented times.

Five Areas Where No-Code Can Be Applied Right Away

In our experience, enterprises can begin using no-code right away and begin adapting their digital infrastructure to work around disruptions of any scale. Here are five areas that no-code can begin building value and resilience off-the-bat.

1. **Build a "front-end" to legacy systems:** A no-code platform can be used to quickly create a new user-facing front-ends for legacy systems (read on page 10 how, in the thick of the COVID-19 crisis, NYC used no-code to quickly develop a suite of digital channels to remotely connect citizens to existing systems and processes).

2. **Automate workflows across business areas:** Organizations can easily build automated workflows that connect various parts of the business to build efficiencies (e.g., when a new employee is onboarded and signs up through a no-code-built application, they are automatically assigned appropriate IT permissions, added to payroll, provided a physical space with the facilities department—this is an efficient workflow under normal circumstances, but can prove to be a crucial element in times of remote work).

3. **Expand talent pools:** With limited training, team members who have little-to-no coding experience can join in on the development process. This diminishes a reliance on a small pool of experienced coders who can apply their expertise in more specialized ways. It also allows SMEs to directly translate their unique understanding into a digital application.

4. **Add new functionality:** Organizations can easily—and quickly—add-in new self-contained microservices to their existing applications and workflows via APIs and endpoints.

5. **Build all new applications (finally):** Had that project on the back-burner, but the complexity or resources needed were too high? With no-code, your organization can build an all-new greenfield system in a faction of the time it would take using traditional methodologies.

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Resilience in Action

No-code's impact on resilience is not just theory—no-code is making a very real impact right now. In this section, we'll explore a couple of real-world examples of how no-code was used to quickly address challenges through the rapid development of robust digital applications.

A Wealth Manager Used No-Code to Digitize Their Entire Client Lifecycle In Just 12 Weeks

Digital resilience is also the measure of an organization's ability to pivot its digital posture in normal business times—not just in the context of mass-impact events. Take this example from a wealth management firm, which used no-code to build a robust digital system in a matter of weeks, not years.

CHALLENGE

Facing a revenue slowdown due to low-advisor productivity and prolonged time to onboard and service clients, the firm's margins were under pressure due to the high operational cost and risk driven from manual processes and controls.

SOLUTION

Using Unqork's no-code solution, it only took 12 weeks for the wealth manager to build an end-to-end digital solution, fully automating client/advisor data capture, KYC, suitability, product selection, and account opening. The no-code solution was fully integrated with record keeping systems, as well as third-party services such as SFDC, Docusign, and PLAID.

RESULTS

Not only was the application developed and deployed in record time, but it resulted in tangible business benefits.

- **Accelerated** client onboarding times by 60%
- **Reduced** operational risk by 70% with automated controls
- **Decreased** cost of operations and ownership by 40%
- **Increased** revenue by 20%

NYC Used No-Code to Mount a Rapid Digital Response to COVID-19

The impact on New York City by the initial wave of the COVID-19 pandemic was as deep as it was rapid. In order to respond adeptly to the crisis, the city needed to quickly develop a suite of robust digital tools that no one was planning—let alone even considering—just a month before.

The speed of traditional development methodologies (particularly those at the local government level) would not be sufficient to address the rapid pace at which the disease was rampaging through the city. In order to accelerate the development of four enterprise-grade digital portals to address the crisis, the city's COVID response team tapped the power of Unqork's no-code development platform.

- **COVID-19 Engagement Portal:** In just 72 hours, the city was able to build and deploy the **COVID-19 Engagement Portal**. The Portal, which is available in 11 languages, allows residents to self-report COVID-19 data, which the city can use to map the impact of the virus and connect residents with critical services.

- **PPE Donation Portal:** As infection rates grew at an alarming rate in those first few months, the healthcare system found itself facing shortages of critical PPE, so the city worked with Unqork to rapidly build a **PPE Donation Portal** that allows individuals and organizations to donate much-needed medical equipment.

- **GetFoodNYC Delivery Portal:** Prior to the pandemic, millions of NYC residents relied on food pantries, soup kitchens and congregate meal programs at senior centers. Given the fast-moving economic

impact of the pandemic, the number of city residents who depend on these services expanded at a rapid clip.

To provide food for COVID-19-vulnerable and food insecure New Yorkers not currently served through existing food delivery programs, Unqork worked with the City to launch the **GetFoodNYC Delivery Program** which provided Taxi Limousine Commission-licensed drivers with the opportunity to earn money while making food deliveries to vulnerable New Yorkers.

> "In just a few days, the Unqork platform helped us deploy applications to address a wide spectrum of needs—from health impacts, to hunger, to PPE for healthcare workers on the front lines."
>
> *-JESSICA TISCH, COMMISSIONER OF DOITT AND CIO FOR NEW YORK CITY*

- **"Project Cupid" Marriage License Hub:** To ensure that citizens could still enter legally-recognized unions despite social-distancing barriers, the city worked with Unqork to develop a hub to process marriage license applications remotely. The **Project Cupid** platform digitized the entire process from application to identity verification to online fee payments to license generation.

The development process for these portals would have been far slower had they relied on traditional development methodologies. Since going live, these support hubs have enabled the delivery of over **40 million free meals to residents**, accepted donations of essential medical supplies, and allowed NYC residents to self-report how they are impacted by COVID-19.

In Conclusion

As enterprises continue to prioritize digital transformation, it is becoming clear that simply "going digital" is not enough to ensure digital resilience. Resilience requires not only a sustained organizational effort, buit the right tools as well.

This is where no-code can be a game changer.

If nothing else, the current disruption has revealed the fact that many organizations are not realizing the full potential of what today's technology can provide. Traditional software development methodologies do not provide the speed and flexibility a modern enterprise needs to digitally withstand the predictable and inevitable, let alone the large and unprecedented.

Advanced no-code platforms like Unqork can help your organization achieve adeptly engineer around challenges of any scale. Get in touch to see what we can do for you.

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Enterprise application development, reimagined

Unqork is a no-code application platform that helps large enterprises build complex custom software faster, with higher quality, and lower costs than conventional approaches.