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No-Code on the Front Lines of the COVID-19 Crisis

How Unqork empowered organizations to rapidly build and deploy enterprise-strength digital applications in response to an unprecedented crisis.

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Very few organizations were actively preparing for the impact of a global pandemic in January of 2020. By March, the effects of COVID-19 were impossible to avoid.

In the enterprise space, the crisis materialized as a sudden and cavernous disruption to operations. Consider that a mere 30% of respondents to an i4CP survey in early February reported the pandemic had impacted productivity, but only three weeks later, that number had more than doubled.

In the public sector, the pandemic resulted in crucial government services not being able to reach those most in need. According to an analysis by The Century Foundation, for example, state unemployment systems were so overwhelmed by the sudden jump in claimants that by the end of April they were only able to successfully fulfill 47% of claims (which we should note was a marked improvement over March, when fulfillment only reached 14%).

Modern digital technologies may have helped mitigate some aspects of the crisis, but for most organizations, the impact proved unavoidable and, in some cases unrecoverable[1]. Following months of unrelenting disruption, one thing became clear: Withstanding a COVID-scale crisis requires more than online hubs and cloud-based productivity suites; it requires the ability to rapidly shift digital infrastructure around fast-moving events.

[1] A number of large enterprises representing a wide span of industries were unable to adapt fast enough to survive the pandemic (or, at least, were forced to file for bankruptcy protection) including Brooks Brothers, Chesapeake Energy, Hertz, Gold's Gym, JCPenny, McClatchy, Pier 1, and Skillsoft, just to name a notable few.

Building custom software, however, can be plodding under even the best of circumstances: Consider that developing a custom enterprise solution using a traditional code-based approach can take up to a year with 85% of projects going over schedule, which is hardly useful in the context of a pandemic that unfolded over a matter of weeks.

This lagging pace of traditional development is due to a variety of factors such as difficulties upgrading & integrating legacy technology, competition for IT talent, and the disparate and expansive complexity of modern digital ecosystems. All these challenges are, of course, only amplified during a pandemic.

When it came to engineering around this fast-moving crisis, no-code platforms proved invaluable for helping organizations—both public and private—build scalable, secure, enterprise-ready applications with unprecedented speed. In this eBook, we will explore how some of the country's leading cities and biggest enterprises used no-code to rapidly adapt their infrastructures and deliver for residents and clients.

No-Code + Big Cities in the Time of COVID-19

The initial impact of the pandemic in New York and Washington, DC came in March of this year. To respond adeptly to this rapidly unfolding crisis, these cities needed to quickly develop and deploy a suite of robust digital tools that no one was working on—or even thinking about—just a month prior.

To accelerate development, leadership in NYC and DC partnered with Unqork to build robust scalable applications in a fraction of the time it would take with a traditional code-based approach. In some cases, applications were designed, built, and deployed in less than a week.

These solutions built on Unqork's platform have enabled the delivery of more than 65 million free meals to residents in need, accepted millions of dollars in donations of essential medical supplies, and helped thousands of city residents remotely connect with vital public services.

Citizen Engagement Hub

INITIAL BUILD + DELIVERY: 10 DAYS

In the early days of the virus' spread, local governments needed a way to connect with a growing number of afflicted citizens while adhering to social-distancing mandates. As the number of cases multiplied by the day, so did the urgency of getting the project built—which is where no-code proved to be a game-changer.

Using Unqork's platform, the city of New York was able to design, build, and deploy a **COVID-19 Engagement Portal** in just 10 days. The portal allows residents to self-report details of their COVID-19 infections in 11 languages. The city used this self-reported data to map the impact of the virus at a granular level, inform residents with up-to-date targeted communications across multiple channels, and connect residents with critical services. The portal provided the city with an increased ability to coordinate and communicate between its citizens during an extremely confusing time.

This was a complex digital undertaking that might have taken months using a traditional approach, but with no-code, the city was able to take it from ideation to production in a little over a week.

Washington, DC deployed **a similar application** within a week. "The Support Hub allows us to deliver food, personal hygiene products, and other essentials to those in need," said DC Mayor Muriel Bowser. "By working together, we will flatten the curve and keep our residents safe." Overall, DC's Support Hub has processed over 5,000 requests for assistance and has been used to resolve 1,626 requests for assistance with mental health, utilities, or prescription drugs.

FAST COMPANY

"Instead of relying on code, the platform for New York-based Unqork provides a drag-and-drop, flowchart-style interface to specify how forms should collect data and how back-end logic, like determining who is eligible for what kind of programs, should function. That means that people who are familiar with the ins and outs of government and corporate operations can often quickly build working digital tools themselves even if they don't have coding expertise."

— Fast Company, June 16, 2020

Medical Equipment Mobilization Application

INITIAL BUILD + DELIVERY: 72 HOURS

COVID's rapid spread unearthed issues that few people were thinking about just a couple of months prior—such as how unprepared local healthcare systems were for a sudden spike in demand for Personal Protection Equipment (PPE).

As infection rates grew at an exponential rate through NYC in those first few months, the city found itself facing shortages of critical PPE for its front-line workers. Following the successful implementation of the city's Engagement Hub, the city once again decided to partner with Unqork to build and deploy a PPE Donation Portal to help funnel any available PPE—as well as ventilators and other medical equipment—to where they were needed most.

The solution's user-facing portal allows private citizens, labs, and medical offices to input descriptions and quantities of available supplies and schedule a time for driver pick-up using a variety of mobilization channels (e.g., taxi networks, DoorDash, Lyft, Uber) who will then deliver hospitals in need. The PPE Donation Portal was built in just three days and would eventually facilitate the donation of hundreds of thousands of pieces of equipment throughout the city.

Food & Supply Delivery Solution

INITIAL BUILD + DELIVERY: 72 HOURS

The pandemic has affected everyone, but it hasn't affected everyone equally. While residents in high-impact areas might have been inconvenienced by social distancing mandates, the pandemic represented something far more serious to society's most vulnerable groups.

This problem was acutely felt in New York City, where, before 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 virus, the number of city residents who depended on these services expanded at a rapid clip, but previously established distribution channels were no longer operational.

To provide food for COVID-19-vulnerable and food-insecure New Yorkers, the City used Unqork's platform to build the GetFoodNYC Delivery Program over a single weekend in the middle of March. Residents could simply go online and answer a few questions to see if they qualify for free food deliveries (residents could also connect with the system over the phone via the city's 311 system). The system even allows residents to indicate their food preferences, e.g., kosher, vegan, halal, rice, Jain, and vegetarian. All deliveries were handled by thousands of registered taxi and transportation network company drivers who, as a result of the pandemic, were experiencing a severe decrease in their regular business.

The Program proved to be very scalable and went from servicing 15 meals on its first day to 900,000 meals a day during its peak. More than 65 million have been delivered to nearly 700,000 unique households. The system also helped provide a source of income for tens of thousands of taxi and limousine drivers whose traditional business was disrupted.

This was a complex application integrating multiple disparate systems and advanced functionality, but using Unqork, the city was able to build and deploy the solution in just three days. In April, a similar food-delivery function that connected the public with deliveries by city workers was integrated into DC's primary support hub, also just in three days. "This was one of those times where in an emergency we found a system that really just came in and made the responders' jobs easier and made the lives of the recipients of those services easier," said Geldart, the director of the DC's Department of Public Works.

THE WALL STREET JOURNAL.

"One Friday afternoon in mid-March, Cas Holloway, head of public enterprise for Unqork, a Manhattan-based no-code software application program, got a call from Jessica Tisch, commissioner of New York City's Department of Information Technology and Telecommunications....

The city needed Unqork to build a digital platform that would allow residents to order free meals to be delivered by the thousands of city-licensed taxi and ride-share drivers who were desperate for work. Could Unqork get this done over the weekend?

'I think we can,' Mr. Holloway said.

He put his team on it. **By Monday, the platform, which cost the city about $600,000, was up and running**. The city's Emergency Food Home Delivery program is now serving nearly 900,000 meals a day."

— Wall Street Journal, June 2, 2020

Virtual Marriage Licensing

INITIAL BUILD + DELIVERY: 14 DAYS

Significant life events don't stop happening just because of social distancing. Among the many services disrupted by the pandemic, visiting the city clerk to receive a marriage license has been put to a standstill. Disrupting these legal recognitions can have a profound impact on a variety of financial, legal, and health matters. Government agencies needed to find ways to digitize critical licensing processes—of all kinds—in a way that allows them to be executed efficiently, securely, and remotely.

In mid-April, NY Governor Cuomo issued an executive order allowing couples to apply for a marriage license online while also being able to receive a virtual ceremony. With the legal barriers removed, the city just needed to overcome the technical ones. Following the successes of its previous applications, New York City tapped the Unqork platform to help it digitize the marriage licensing process.

The online marriage platform digitized the entire process from application to identity verification to online fee payments to license generation. Now, city residents can access the marriage license application directly from the city clerk's website. Couples can efficiently complete, upload, and submit identity verification documents; pay fees online via credit card; and schedule a video appointment with a clerk. The platform will then facilitate a 45-minute video session with a clerk who will ensure that all paperwork is in order and generate a marriage license—all without leaving the app.

Designing a hub of this complexity would have taken months using a traditional code-based methodology. Using no-code, the entire solution was designed, built, and deployed in just 14 days.

Virtual Family Assistance Center

INITIAL BUILD + DELIVERY: 10 DAYS

In any previous high-impact event, the District would respond by establishing a "Family Assistance Centers" at a physical location to connect individuals who lost a family member with a navigator who would lead them through the complex bureaucracy of public services. Social-distancing mandates made it impossible to provide these services in the usual way. So, the District worked with Unqork to launch a "Virtual Family Assistance Center" to safely—and remotely—connect mourning families with a wide range of services and assistance.

Built over just 10 days in April, the system allows the city to take a systematic (and remote) approach to distribute information, assistance, and aid including everything from burial assistance to mental health services.

Individuals enter the Virtual Family Assistance Center through two main avenues: By indicating that they suffered a loss when accessing the GetHelp engagement portal, or by having their data transferred over from the medical examiner office.

The Virtual Center's Admin Portal allows administrators to assign individuals to a specific navigator who can lead them through the aid process. The navigator-facing portal leads navigators through a step-by-step intake/interview process and gives them the ability to connect families with a wide range of District agencies.

As of writing, DC's Virtual Family Assistance Center has helped deliver assistance to more than 600 families throughout the District.

Transformation Vs. Resilience

"**Digital transformation**" remains one of the hottest buzzwords in the enterprise space, but going digital is not the same thing as being digitally resilient. Digital resilience means having the organizational and technological 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[2].

Digital Resilience
The sustained ability to mount a rapid, flexible, and robust digital response to evolving business challenges[3].

Digital transformation is a necessary predicate to achieve digital resilience, but it is not sufficient in and of itself. Furthermore, going about transformation with the wrong approach could make your organization less resilient than the analog version it replaced by injecting more unwieldy legacy code that will have to be dealt with for the next technical upgrade.

To be resilient, an organization must have the right tools to rapidly shift one's digital stance to address unforeseen—or even unprecedented—challenges (say, a global pandemic). Development-as-usual using code is not up to the challenge of addressing dramatic shifts.

[2] "Digital transformation" can be defined a number of ways, but most would agree that it refers to the adaption of new technologies to achieve efficiency goals. However, it's important to keep in mind that transformation needs be viewed as an organization-wide endeavor, not merely an IT function. As the Harvard Business Review put it, successful digital transformation initiatives from the past required more than technology: "Digital transformation worked for these organizations because their leaders went back to the fundamentals: they focused on changing the mindset of its members as well as the organizational culture and processes before they decide what digital tools to use and how to use them."

[3] The phrase "digital resilience" has typically been used in a cyber security context. McKinsey defines it as "the ability to design customer applications, business processes, technology architectures, and cybersecurity defenses with the protection of critical information assets in mind." However, we think it's useful to expand its meaning to refer to an organizations' ability to remain functioning at a high level through any unforeseen disruption. As a recent CSO article more-broadly defined it: "an organization's ability to maintain, change or recover technology-dependent operational capability."

How No-Code Empowered the Private Sector's COVID Response

While no-code represents a development seachange for the public sector, it has also helped the private sector rapidly adapt their digital infrastructure to address the challenges of these unprecedented times.

Workforce Resilience and Risk Management

INITIAL BUILD + DELIVERY: 3 WEEKS

Organizations of all sizes have been tasked with responsibly reopening physical workplaces while mitigating the risk to employees, partners, and customers. This can require companies to make critical decisions related to logistics, facilities, and personnel as they transition to "the new normal."

Using the no-code platform, organizations can rapidly tailor a solution that allows them to return-to-work efficiently and responsibly.

Case in point: a global risk-mitigation firm with 530 offices in more than 80 countries was faced with the prospect of implementing their office reopening framework manually. Using conventional manual processes would not only involve a considerable investment in time and resources, but it would also require subjective decision-making that could open the door to liability. Using Unqork's **Workforce Resilience & Risk Management Solution**, the firm implemented its proprietary risk management framework in fewer than 3 weeks. This solution allows them to centrally manage risk, run through company-specific workflows and approvals, and, most importantly, reopen offices in a manner that's specific to their business.

Small Business Lending

INITIAL BUILD + DELIVERY: 2 WEEKS

With unemployment rates spiking, the federal government passed the Coronavirus Aid, Relief and Economic Security (CARES) Act in March to provide relief to Americans affected by COVID-19. A big part of the act was the Small Business Association (SBA)'s Payment Protection Program (PPP), which provided companies with forgivable loans administered by private lenders.

To capitalize on the opportunity, lenders had to act quickly while maintaining the integrity of their operations and regulatory compliance. The sheer number of applicants and funds (and the speed with which they needed to be processed) would have been completely untenable relying on manual checkpoints and paper-based processes. It would also be impossible to build a secure, compliant, and sophisticated digital solution on the necessary timescale using traditional code-based methodologies. That's where no-code came in.

When a top financial institution needed to rapidly develop small business lending capabilities to participate in the new lending opportunity, they turned to no-code. After partnering with Unqork, the institution was able to deploy a small business lending solution with custom workflows to support and augment their operations in just two weeks.

The resulting application allowed the lender to automate a significant amount of laborious (and expensive) manual effort while subsequently reducing risk by implementing compliance measures at scale.

Loan Forbearance

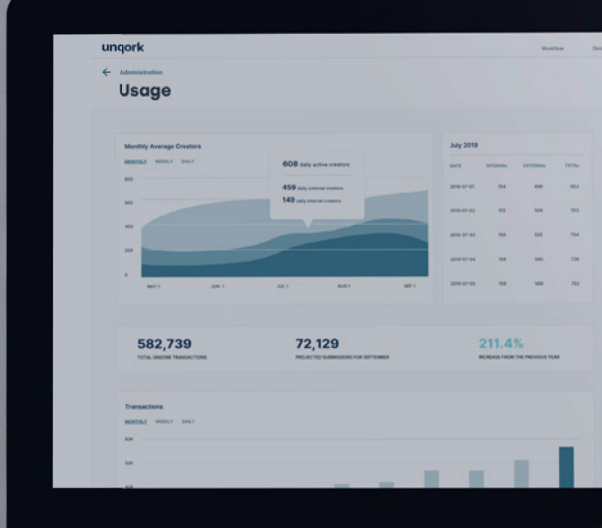
INITIAL BUILD + DELIVERY: 2 MONTHS

The CARES Act provides **guidance and provisions** for lenders to assist those whose finances have been disrupted by illness or shutdowns (or both). While this assistance can be an economic lifeline for borrowers, it can bring new regulatory, compliance, operational, and technology challenges to lenders. Chief among these challenges is that the sheer volume of forbearance requests will likely be higher than any lender has ever seen.

Developed in partnership with KPMG and accordance with CARES act regulations, Unqork's **Loan Forbearance Application** is a turnkey application that enables lenders to rapidly process forbearance requests for multiple loan types (e.g. auto, home, other loans) while complying with stated guidelines.

Clients can easily upload their information, qualification criteria are automatically applied, and requests are aggregated and presented for efficient review by loan officers. The result is a flexible solution that allows lenders to get their CARES-act compliant forbearance function and running quickly to support communities in need.

Unqork: The First Enterprise No-Code Application Platform



The leaders of tomorrow will be the companies that can digitize their processes most thoroughly and adapt their infrastructure most rapidly around shifting business challenges. With no-code, firms are empowered to build scalable, secure, complex, compliant, custom applications with unprecedented speed and flexibility.

That's why many of the most innovative players are partnering with Unqork, the first enterprise no-code development platform specifically designed for the world's most complex and regulated industries. Our platform represents an entirely new paradigm that optimizes every aspect of enterprise development through:

A unified SaaS platform: Unqork is a completely unified SaaS platform, which means it provides all the components and capabilities related to crucial areas like **compliance** (up-to-date regulatory and enterprise rules engines for FATCA, CRS, UK CDOT, Dodd-Frank, EMIR, and MiFID II, etc.), **security** (native encryption both in transit and rest, custom RBAC capabilities, and crowd-sourced penetration tests), and **application management** (SDLC governance, application versioning, and module management)[1].

A visual UI: Applications are built via an intuitive, visual User Interface (UI) featuring drag-and-drop components representing user-facing elements, backend processes, data transformations, third-party integrations, and a growing library of industry-specific templates.

Enterprise-grade standards: While there are several business-area-specific or consumer-level no-code systems on the market, Unqork is the only no-code platform designed specifically to build complex, scalable, enterprise-ready applications, which is why it's already being used by some of the world's leading organizations.

[1] While Unqork is a SaaS platform, our customers operate in single-tenant environments, which means there is never a mixing of client data between Unqork customers. Unqork is cloud-agnostic, so customers can avoid cloud vendor lock-in and deploy applications in the cloud of their choice.

Unqork allows enterprises to shift all their focus to addressing business challenges instead of technical ones. The platform takes on the “heavy lifting” and frees organizations to invest their resources building operational efficiencies and perfecting the client experience. This streamlined approach helps organizations achieve:

- **Accelerated speed-to-market:** No-code automates many high-volume development tasks so new applications can be built and deployed much faster. In many cases, applications that would take months or years to reach the market can be built in a matter of weeks, or even days.
- **The elimination of legacy code**: Code becomes legacy nearly instantly. With no-code, organizations only need to be concerned with building business logic, even if there is a technical change, the platform handles all that on the backend.
- **Ease of updates and maintenance**: Large enterprises can spend up to 75% of total IT budget maintaining existing systems. One of the reasons is the complexity of making a change in one area requires changes throughout the process. A no-code platform automates many of these cascading tasks and therefore reduces the complexity of making changes.
- **Business agility**: Whether it is a pandemic or disruptions of a smaller scale, no-code can provide organizations with a way to address events quickly.

Curious about how no-code can be applied within your organization? Get in touch to schedule a demonstration from one of our no-code experts.