unqork

Architecture to the Power of No-Code

Unqork's no-code enterprise application platform combines the power of visual programming with the ease and flexibility of a fully managed PaaS

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Unqork is the world's first no-code enterprise application platform. It was designed from the ground up to support every stage of the development lifecycle from designing & building applications to ongoing maintenance, IT governance, and infrastructure management.

At the core of the platform is Unqork's revolutionary no-code engine, which completely separates application logic & behavior from the codebase underneath, and therefore eliminates the inevitable challenges of maintaining years—if not decades—of legacy code. By combining the no-code engine with a fully-managed cloud infrastructure, Unqork empowers organizations to deliver robust, dependable, and secure enterprise services to their end-users.

Key Benefits

Single-tenant

All Unqork instances are single-tenant by default. Only your products, rules, and customers live inside of your instance. Every Unqork customer receives several non-production environments in a VPC separate from the production environment.

Cloud agnostic

Run your application on Amazon Web Services (AWS) or Microsoft Azure's highly secure infrastructure platforms.

Flexible deployments

Unqork is a cloud-native, highly elastic architecture running Kubernetes and MongoDB Atlas under the hood, enabling infinite scale, upgrades, and patches with no downtime. And, Unqork's modern architecture data layer can be horizontally scaled, resulting in excellent performance and security that is second to none.

This ebook will explore the platform components that users can leverage to manage & scale their application architectures and deliver future-proof software to their users.

Key capabilities and components

Flexible and dynamic data schema

Flexible storage
Configurations created and stored as JSON allow for flexible and dynamic data schema to store multiple data types and formats.

Relational database
Support full ACID transactions, support for joins in queries, an ability to have two types of relationships instead of one: reference and embedded.

Rich query APIs
Rich query APIs allow filtering and sorting by any field, no matter how nested it may be within a document.

## Containerized servers

Event-driven architecture
Unqork uses events, such as a change in state, to trigger and communicate between decoupled services allowing those services to be scaled, updated, and deployed independently.

High performance and scalability
Unqork is containerized and managed in a Kubernetes cluster, allowing flexible deployments that can scale up and out. Node.js' "Single Threaded Event Loop" combined with node-cluster supports many concurrent client requests.

Server-side execution
The same configured business rules and workflow can be executed either client-side or server-side depending on security and performance needs.
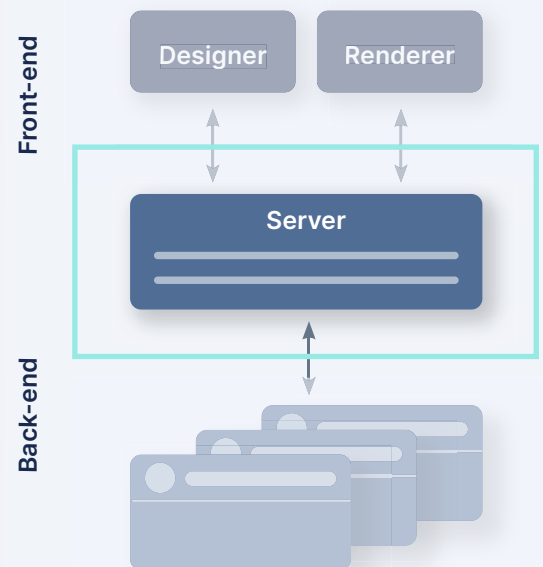
CX and API renderer

AUI rendering and custom styling
Automatically generate a fully responsive UI using your branding and your styles. Renderer interprets a configuration JSON on the fly, so no code is generated, and upgrading the renderer to the latest frameworks is a seamless exercise.

Seamless handoffs
Start on one device or with one user, finish with another, or collaborate on the same page.

Validation on the glass
Move business rules to the glass, and stop any errors from going through.

Front-end

Designer   Renderer

Server

Back-end
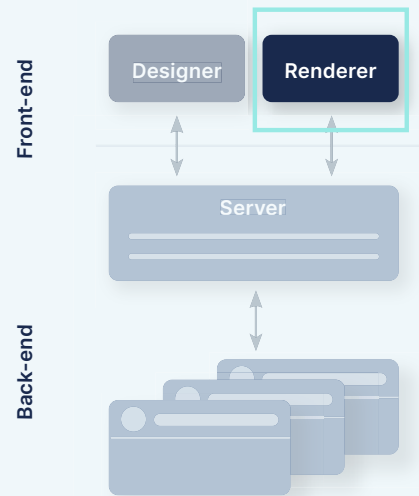
Designer

Intuitive self-service builder
Drag-and-drop intelligent components that automatically validate and monitor other components to build complex interactions.

No-code, not low-code
No scripting is allowed anywhere on the platform. If you need to perform a custom computation, you can do it in Excel-like formula or a visual ETL data transformer.

Industry templates
Leverage an extensive library of snippets and customize them to adhere to your specific business needs and requirements.

Specialized components
Use tailor-made components to address enterprise pain points, including e-Signatures, PDF generation, dashboard, spreadsheet & document uploads, to name a few.
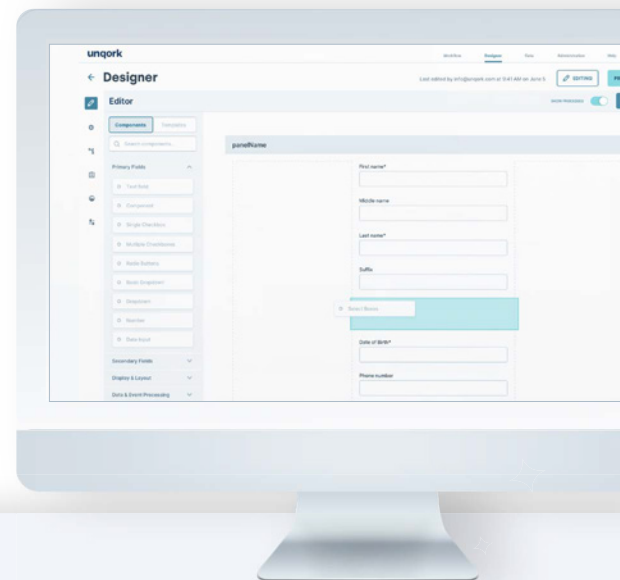
Security & compliance

SOC 2 Type II Certified
Unqork undergoes annual SOC 2 Type II examinations to attest to those security requirements. This examination is conducted in accordance with AICPA standards, specifically AT-C Section 205. On an annual basis, an external auditor evaluates the design of Unqork's security controls to ensure suitable security assurance. Additionally, Unqork's controls are routinely tested to verify control effectiveness.

To learn more about our compliance functionality in a variety of areas, visit our **security guide.**

Penetration and static code testing
Unqork regularly assesses its platform security with pentesting bi-annually (at least), including periodic independent network and application pentesting, in-house manual application review and testing, and client-driven application penetration tests.

User authentication
We integrate with your SSO (OIDC, SAML 2.0, or custom). We also offer two-factor token-based authentication for new users.
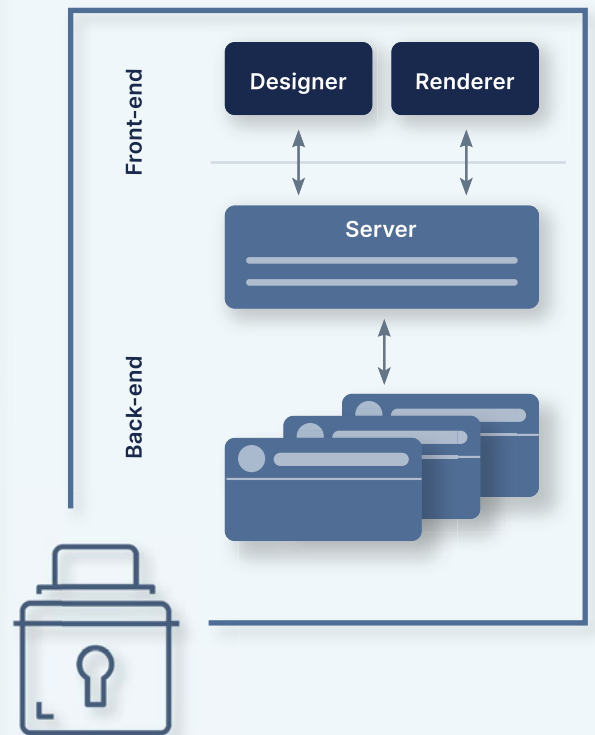
APIs & integrations

Unqork allows Creators to automatically generate APIs using the same tools to develop the customer experience and call that module headless through an API.

One of the great benefits of Unqork is how it empowers organizations to seamlessly integrate custom applications with existing legacy systems and external third-party solutions. Whether it be an API, a custom integration, or a blue-chip technology partner, the Unqork platform allows users to authenticate these services through many methods while providing the means to apply mTLS or other controls to further enhance integration security.
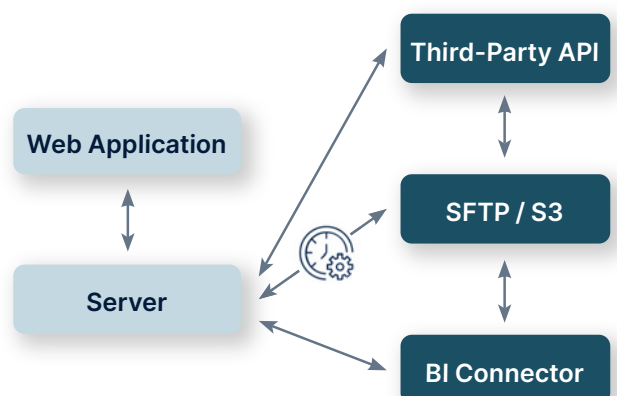
High availability & redundancy

When it comes to SaaS, reliability is a cornerstone. In relinquishing control of your software's backend infrastructure operations, you need a partner that you can trust to ensure the consistent availability and performance of your business-critical applications.

Unqork provides you with the reliability and availability to give you confidence that your employees and/or customers have access to your Unqork services, when they need it, and from where they need it.

Our always-on monitoring processes and technologies give you peace of mind knowing that your services are constantly supervised and optimized.

We're committed to ensuring that your business-critical software is continuously up and running. SaaS solutions from Unqork operate at near-100% service availability levels[1] that we have a history of meeting and exceeding.

We deploy our SaaS solutions in a load-balanced and highly available infrastructure that's designed to handle heavy traffic and eliminate single points of failure at any level of the deployment architecture.

Failure detection capabilities exist within each tier, and once activated, send instant alerts to the Network & Security teams for correction. Additionally, failures are automatically contained, as redundant data backups allow single instances to fail without any impact on the service or user experience.

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[1]A recent analysis found that Unqork boasted 99.99% uptime in 2020.

High availability & redundancy (continued)

Automatic data & configuration backup

Periodic data backups are performed automatically and allow for one or more data recovery points, giving you the confidence that your data won't be lost.

SaaS solutions from Unqork come equipped with built-in data resilience, achieved by automated, scheduled backups of data and configurations that create multiple service recovery points. These are essential to business continuity and disaster recovery plans and, upon a customers' request, can also be utilized to restore service to a previous state.

Backup & restoration

Data backups are separately managed for each of our customers in order to meet the client's policies and requirements. The following are some examples of backup and restoration procedures inherent in our SaaS offering:

- ☑ **Recurring backups** - All data is routinely backed up and safely stored daily, and transactional data is backed up every six hours.

- ☑ **Retention period** - For most SaaS clients, data backup points are stored for a defined retention period of one calendar year. Clients may define any retention period they may require as short as 24 hours up to multi-year.

- ☑ **Storage policies** - In case of disaster, additional backup snapshots are stored for use if a recovery effort is required.

Disaster recovery

Unqork's SaaS operations team manages the services necessary to restore your data as soon as possible following a disaster-type event. Our disaster recovery plan is tested and updated regularly to ensure optimal execution in restoring service should a natural or artificial disaster compromise your primary processing location.

The plan is based on two key metrics: recovery point objective (RPO) and recovery time objective (RTO). The RPO measures the maximum amount of recoverable pre-existing data prior to the disaster, and the RTO measures the target restoration time of the service following a disaster.

Achieving these benchmarks is our main goal when facing a disaster recovery situation. Current Unqork RPOs are one hour and RTOs are four hour for each client resulting in best-in-class service.

Read more about the Unqork platform's high availability and redundancy **here**.

Conclusion

The pressures on organizations to "go digital" have never been more significant. The Unqork platform takes on much of the "heavy lifting" of development, so companies can focus entirely on building value-generating applications.

Unqork's unified platform comes with all the tools needed to create custom, enterprise-grade solutions which can be seamlessly integrated with legacy systems and third-party services. Most importantly, our platform delivers peace of mind. We make it easy to operate and scale complex enterprise applications and provide benefits to your customers, your workers, and your organization as a whole.

Want to learn more about how Unqork can be used at your organization? **Schedule a demo** with one of our no-code experts today.

Unqork: The world's first no-code enterprise application platform

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

That's why many of the most innovative players in healthcare and beyond 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)[2].

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 scalable healthcare applications with industry-grade security and privacy functionally baked in (e.g., adherence to all HIPAA security standards, encryption of data in transit and at rest, automatic back-up, enterprise-strength disaster recovery, cloud instance isolation, robust access and integrity controls, multi-factor authentication, and more).

[2]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 takes on the "heavy lifting" of development and frees companies to shift their focus and resources towards building operational efficiencies, perfecting the user experience, and enacting long-term strategies. By tapping into the power of Unqork's no-code application platform, organizations can realize:

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 the total technology 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, new or changing regulations, 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.

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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.

Request a Demo   Learn More