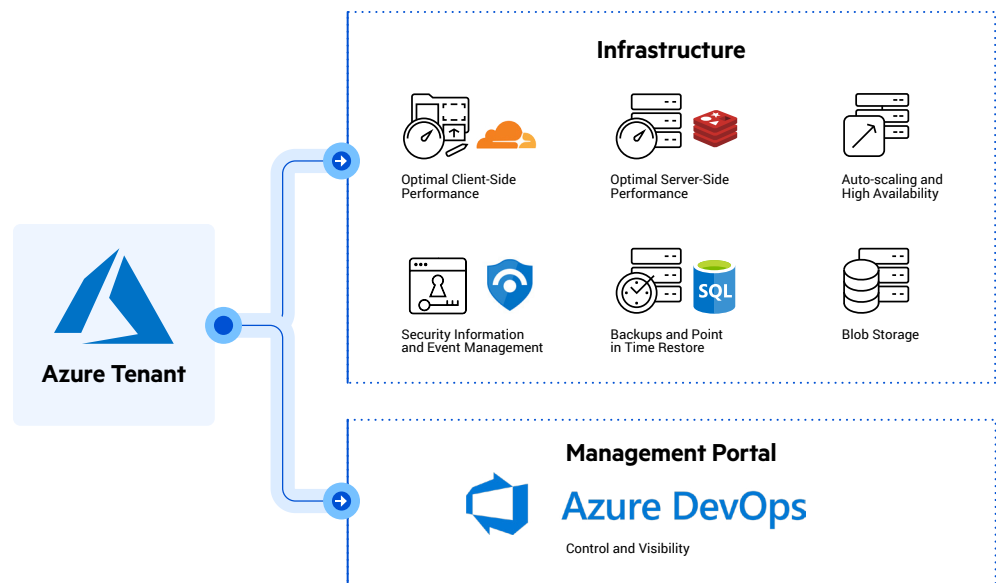![Progress Sitefinity]

Sitefinity Cloud

Progress® Sitefinity® Cloud is a fully managed platform-as-a-service for enterprise content and experience management that helps reduce infrastructure overhead, improve uptime and availability, boost site performance and operational efficiency. Hosted by Progress in Microsoft Azure, Sitefinity Cloud enables businesses and organizations to deliver digital content and experiences without having to set up and maintain complex infrastructure.

TECHNICAL DATA SHEET

Architecture & Infrastructure

Tapping into the robust Microsoft Azure infrastructure, Sitefinity Cloud has all the underlying services and components precisely configured to ensure the maximum performance, availability and security of your websites and applications.

Architecture elasticity supports large-scale, enterprise projects. A robust set of tools and services let you manage the entire development lifecycle with a code repository and integrated CI/CD automation.

Built on top of Azure DevOps, the Sitefinity Cloud **Management Portal** provides access to the Git source control, CI/CD pipelines, as well as preconfigured monitoring dashboards to ensure complete visibility and control over all the processes, from development to deployment to production.

Azure Tenant

Infrastructure

Optimal Client-Side Performance

Optimal Server-Side Performance

Auto-scaling and High Availability

Security Information and Event Management

Backups and Point in Time Restore

Blob Storage

Management Portal

Azure DevOps

Control and Visibility

CDN for maximum client-side performance, with tightly integrated **DDoS** protection and web application firewall (WAF) by Cloudflare.

Production and **Staging** environments, each with its own web app, database and storage.

Redis Cache Highest server-side performance with a distributed output cache to reduce database calls and increase site speed.

SQL Database Scalable, relational database built for the cloud and optimized for high performance.

Lucene Search for unlimited storage and number of search indexes. Azure Cognitive Search add-on.

Blob Storage for media items and database backups.

Progress®

Availability

With load balancing and auto-scaling, Sitefinity Cloud intelligently distributes website visitors to the available web server nodes and scales out to accommodate traffic spikes.

Sitefinity Cloud leverages Azure DevOps for CI/CD automation, with source control and versioning, prebuilt pipelines for code promotion, staging and production environments, a deployment dashboard and comprehensive logs for troubleshooting and detailed analysis. The build pipeline has a tight approval process and failsafe features for zero downtime deployments.
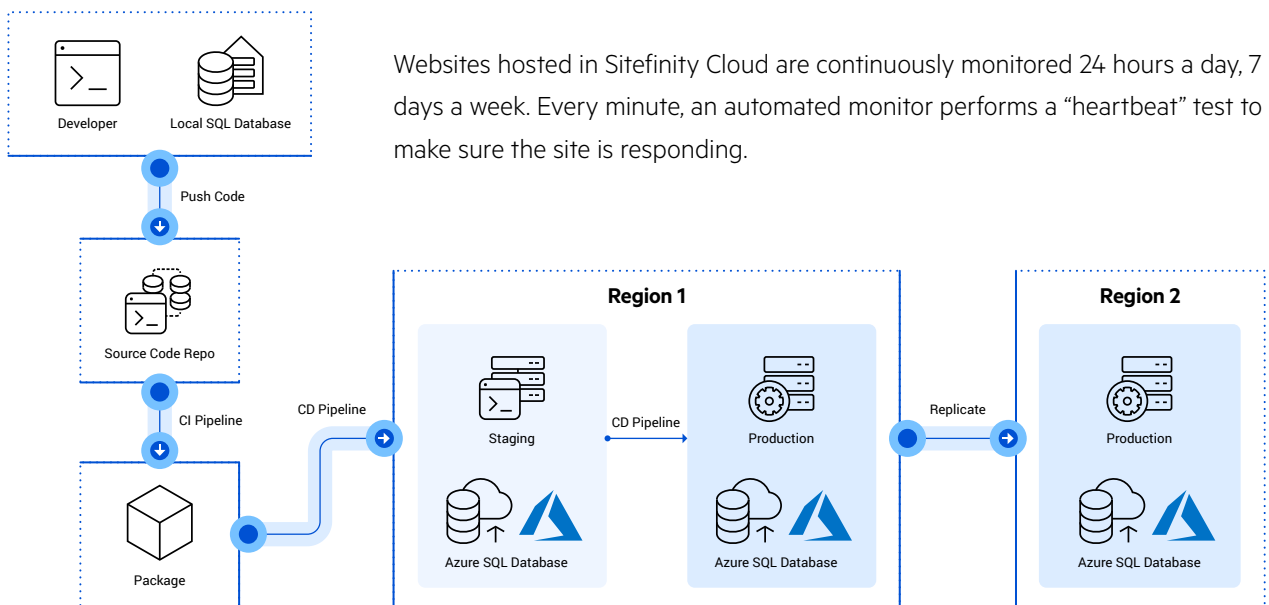
Websites hosted in Sitefinity Cloud are continuously monitored 24 hours a day, 7 days a week. Every minute, an automated monitor performs a "heartbeat" test to make sure the site is responding.

Multi-region Failover provides a robust disaster recovery option, ensuring against critical incidents and infrastructure outage, and enabling engineering teams to restore service availability within up to 30min.

Application Insights offer in-depth performance diagnostics and thorough system health checks. A comprehensive, ongoing, finger-on-the-pulse monitoring of your entire project.

Security Information and Event Management (SEIM) offers real-time monitoring and logging of security events. The Sitefinity Cloud On-Duty Team responds to high-severity alerts.

Performance

Utilizing page precompilation, distributed output cache, cache warmup and a content delivery network, Sitefinity Cloud consistently ensures the optimal performance of your websites and applications, and therefore the best possible user experience.

All these components work together behind-the-scenes when a page is being requested, compiled, rendered and served in a way that feels fast and seamless to end users, regardless of the device, on which they engage with your content.

Several layers of caching and an automated warmup process backed by Sitefinity Cloud's load-balanced architecture make sure your up-to-date content is ready to be served instantly instead of being processed server-side every time.
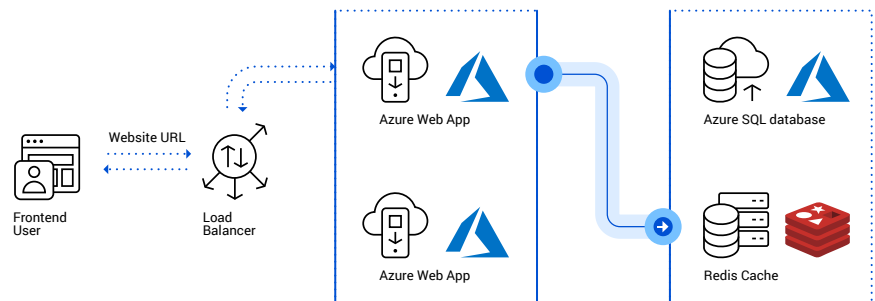
Page precompilation makes sure content loads faster when requested for the first time. Sitefinity has a precompilation tool, which is run manually before a deployment. With Sitefinity Cloud the precompilation step is automated and integrated into the build process.

Distributed output cache by Azure Cache for Redis helps improve the performance after deployment or scale-out, as instances do not have to build up the output cache on their own.

Output cache warmup is a background process that triggers whenever the distributed output cache is invalidated. The process will request the new content and cache the results, serving the updated page to the users with no performance hit.

CDN ensures maximum client-side performance by caching page HTML and static resources (media and static files) on CDN nodes. CDN significantly improves website performance not only in terms of actual page load time but when handling high traffic too.

Security

Your data is contained within your subscription, and **no resources are shared between subscriptions.**

Azure Active Directory provides multi-factor authentication for secure access to the Sitefinity Cloud Management Portal and serves as a single user repository for all Sitefinity environments.

Encrypted connection between Azure resources via Azure shared networking.

Website files, databases, system logs and search indexes are all **encrypted both in transit and at rest.**

The Azure SQL Database service protects all databases with an **automated backup system.**

On-demand backups of databases, with PII obfuscation on the production DB.

Transparent Data Encryption protects your databases, backups, and logs at rest.

Security Information and Event Management (SIEM) available across all tiers to collect, store and analyze security events. An extra level of PaaS security with real-time monitoring and alerts.

Sitefinity Cloud uses the **Azure Security Center**, providing security posture management and threat protection for cloud workloads.

Sitefinity Cloud is **SOC2**, **HIPAA** and **SAMM** certified for secure governance of infrastructure, code, and data. [More about Sitefinity Cloud regulatory compliance.](#)
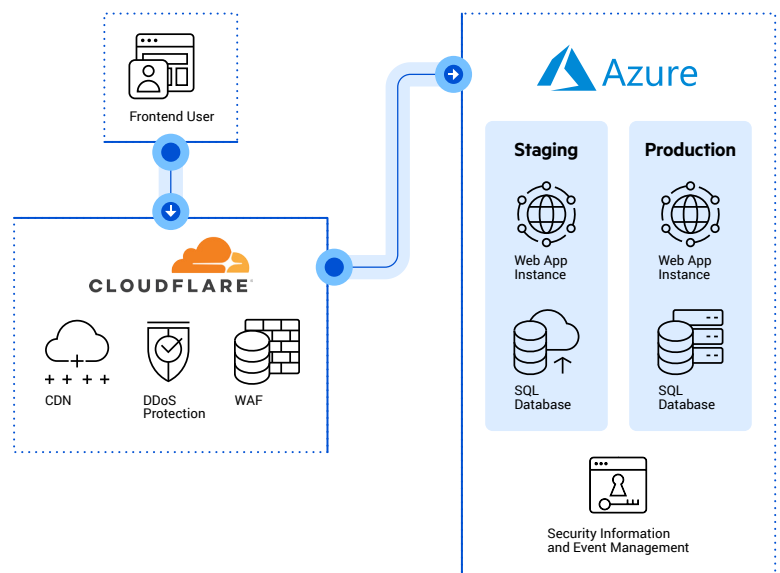
Sitefinity Cloud meets the highest security standards with multiple layers of risk mitigation features and services built into both the application and the infrastructure.

Cloudflare is the CDN of choice and integrates robust protection against Distributed Denial of Service (DDoS) attacks, while the Web Application Firewall is configured to protect against the OWASP top ten security vulnerabilities.

Microsoft Azure provides additional DDoS defense at the Azure services level. Security rules control network traffic to and from the Azure resources that make up the Sitefinity Cloud environment. The Azure SQL Database service protects all databases with an automated backup system. Backups are retained for 35 days with a point-in-time restore option available on request.

Sitefinity offers multiple security features and new releases get the latest versions of third-party libraries and plug-ins. The Sitefinity Web security module is used to configure HTTP security headers, content security policies, and cookie protection. This helps protect sites against attacks such as: cross-site scripting (XSS), clickjacking, code injection, stealing or modifying data in transit (man-in-the-middle), and content sniffing.

Administration

Azure DevOps

Management Portal
- Overview
- Repos
- Pipelines
- Domains
- Users
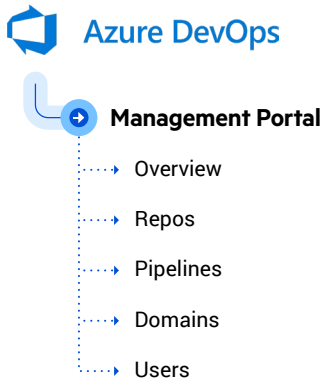
The Management Portal layer of Sitefinity Cloud is based on Microsoft Azure DevOps. It provides a user interface with all the essential tools to manage all aspects of the project, from user access, roles and permissions through code repositories and CI/CD automation, to application health and performance monitoring.

The management portal ensures complete visibility and control over all the processes, from project administration to development and deployment. Pre-configured **dashboards** display information related to the infrastructure including uptime, CPU usage, available memory, and request execution time.

Configure and manage the **CI/CD** processes. The management portal allows you to configure pipelines and releases to move code between environments. Learn more about editing configurations directly on Sitefinity Cloud environments.

The Sitefinity Cloud Management Portal includes a code repo, with full history of code commits, pushes, and branches.

Users within your organization can be invited and given specific permissions to use the management portal, the Sitefinity backend or both. Azure AD is used for authentication and authorization, and can be linked to your existing corporate Azure AD. With the user management features of Sitefinity Cloud, customers have a self-service model that allows for full control over a critical part of the Sitefinity administration.

Active Directory

Sitefinity Cloud uses Azure Active Directory for user authentication and authorization. Every Sitefinity Cloud customer has a dedicated Azure AD. Azure DevOps and Sitefinity are integrated with the same AD, which allows for single-sign-on across the Management Portal and the Sitefinity CMS backend.

Self-service User Management

Sitefinity Cloud enables customers to manage user access via the Management portal. User management is tightly integrated with Azure AD and is a convenient single sign-on solution for enterprise clients with complex structures and multiple users and roles. Manage access from a single place for all sorts of roles: admin, DevOps, development, editorial.

Self-service Domain Management

Sitefinity Cloud streamlines multisite management by enabling customers to self-serve and control the entire website provisioning routine. Add/register or remove domains across environments through a fully automated process handling SSL, domain validation and all the necessary configurations. Additional domain with unlimited subdomains available as add-on.
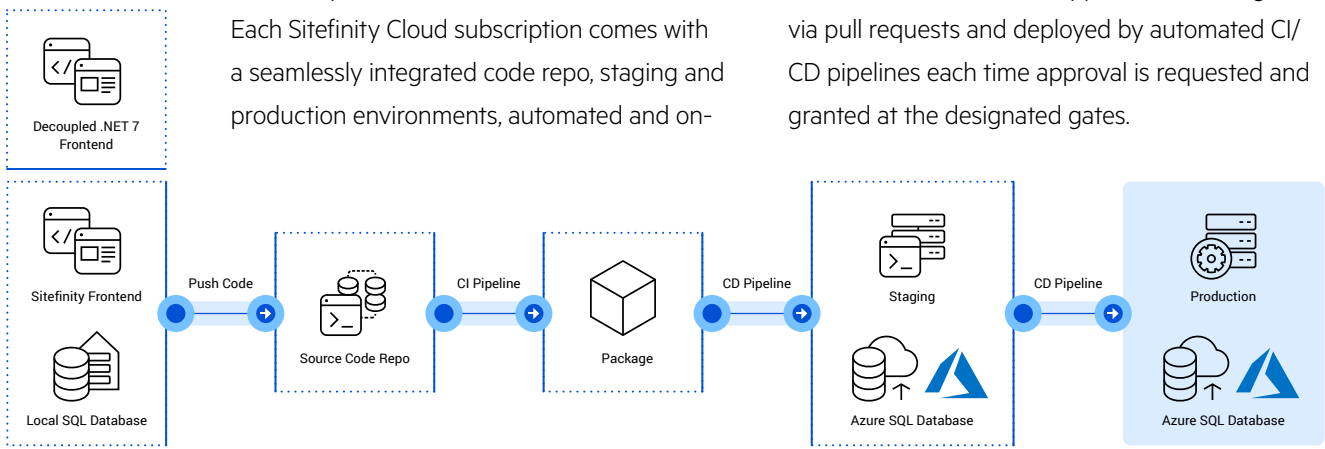
Development

A cloud-native PaaS, Sitefinity Cloud empowers developers by automating the build and deployment process in an elastic scaling environment with enterprise-grade security.

Azure DevOps provides a complete developer toolset with repos to store code and pipelines, which help move code between environments. Each Sitefinity Cloud subscription comes with a seamlessly integrated code repo, staging and production environments, automated and on-demand DB backups, gated pipelines and a meticulous approval routine with failsafe and rollback options.

A deployment failover mechanism and blob storage provide comfortable rollback options in case of corrupt data, bad code or any unforeseen event.

The development process follows a standard Git workflow with contributors coding locally in feature branches, which are then approved and merged via pull requests and deployed by automated CI/CD pipelines each time approval is requested and granted at the designated gates.

Decoupled .NET 7 Frontend · Sitefinity Frontend · Local SQL Database · Push Code · Source Code Repo · CI Pipeline · Package · CD Pipeline · Staging · Azure SQL Database · CD Pipeline · Production · Azure SQL Database

Environments
Each Sitefinity Cloud subscription has a superbly configured Continuous Delivery (CD) setup consisting of two isolated environments, Production and Staging.

Repos & Pipelines
Private Git repositories for your project. External repositories, e.g. GitHub, Bitbucket or Azure DevOps Code Repo, can be connected as well. Pipelines combine continuous integration and continuous delivery to automatically build, test and deploy.

External Blob Storage
Media and document storage alternative to database, with a dedicated and fully preconfigured blob container for each environment. 1TB of external media storage add-on available for all license tiers.

.NET Core Frontend
A dedicated environment providing additional Azure DevOps repository, app services and pipelines for building and deploying the Sitefinity .NET Core renderer.

Low-Code System Integration: Service Hooks
Expand connectivity options, simplify complex workflows, reduce implementation efforts, and automate key processes by leveraging service hooks and low-code integration with middleware that aligns with your existing tech stack and business needs.

Headless Content Management
Leverage a powerful architecture catering to a broad set of integration and headless content management scenarios through a robust set of high-performance content, presentation and personalization APIs with OData output cache.

Monitoring & Troubleshooting

Sitefinity Cloud provides robust monitoring and troubleshooting services to help you stay on top of the health and performance of your websites.

The Management Portal provides a series of preconfigured dashboards that enable customers to monitor key application metrics and CI/CD pipeline status updates.

The Deployment Dashboard shows high-level data about the build and release pipelines, including any pending releases.

Sitefinity Cloud is configured to store the Sitefinity logs in Application Insights. The App Insights overview is built around a number of widgets, which keep track of predefined metrics such as availability, server response time and requests, including request failures. You can select a custom period to show data for or drill down for the fine detail.

Each Sitefinity Cloud project has a performance profiler that automatically collects data in the background on certain intervals, without taking a toll on application performance. If you want to profile your application on-demand, you can manually enable the performance profiler and run it on specific components of your application, whose performance you want to track.

Build logs, Deployment logs

Build logs indicate the state of the application during a build process and report on application status after promoting a build through the CI pipeline. Deployment logs provide detailed information following a deployment to any of your environments.
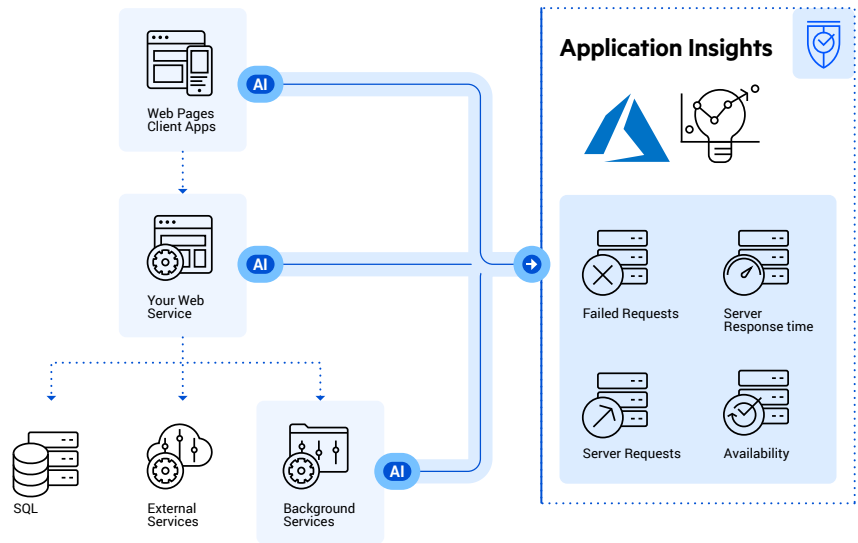
Sitefinity application logs

By integrating with Application Insights, Sitefinity Cloud provides a powerful mechanism to help developers and website administrators diagnose issues and understand website usage patterns, to consistently improve your project performance and usability.

Diagnostics and Troubleshooting

Identify performance bottlenecks and analyze dependencies in a distributed application context. Examine request execution time and failures. Analyze server-side operations and client-side metrics.

Upgrades

Sitefinity Cloud has automated the process of applying updates to the platform, so it requires minimum or no involvement on the part of Sitefinity Cloud customers. Automated upgrades in Sitefinity Cloud save time and minimize the margin of error.

Within every Sitefinity Cloud subscription, an automated pipeline is handling the upgrade process, yet allowing customers to retain control over releasing the upgrade. You get to review the pull request and run your full set of tests prior to promoting the upgrade to production.
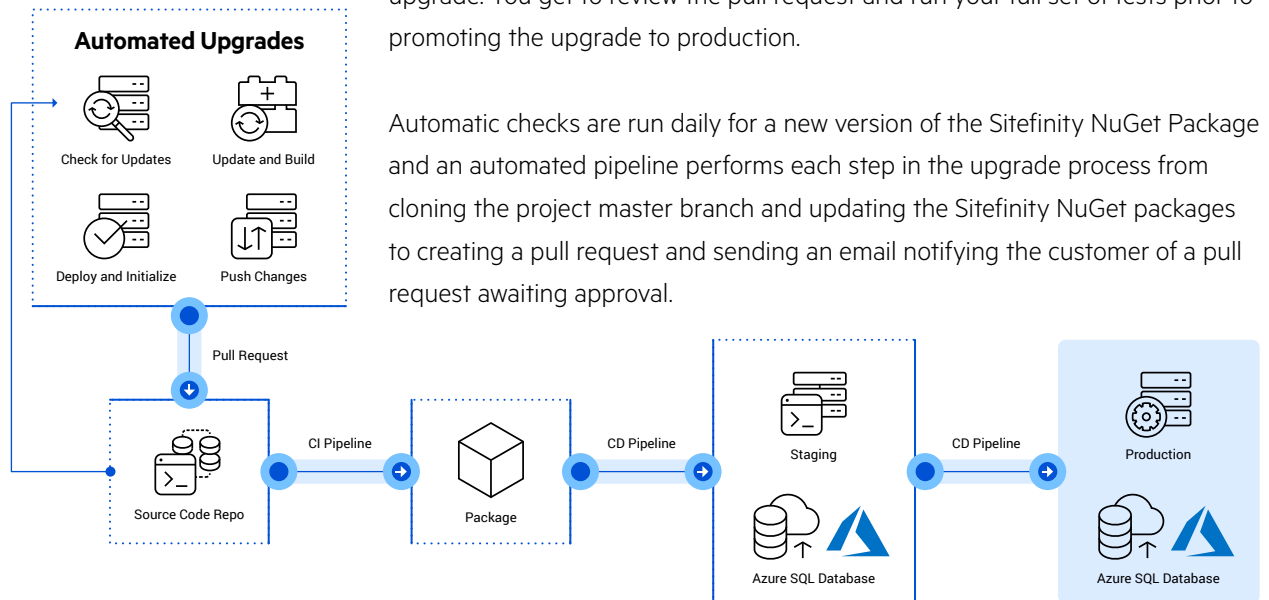
Automatic checks are run daily for a new version of the Sitefinity NuGet Package and an automated pipeline performs each step in the upgrade process from cloning the project master branch and updating the Sitefinity NuGet packages to creating a pull request and sending an email notifying the customer of a pull request awaiting approval.

Automated Upgrades

Check for Updates   Update and Build

Deploy and Initialize   Push Changes

Pull Request

Source Code Repo   CI Pipeline   Package   CD Pipeline   Staging   CD Pipeline   Production

Azure SQL Database   Azure SQL Database

Sitefinity Cloud is a Platform-as-a-Service for enterprise content and experience management hosted by Progress in Microsoft Azure. Providing a globally available, fully managed infrastructure, Sitefinity Cloud is optimized for security, performance, scalability and developer productivity.

Learn More about Sitefinity Cloud:
www.progress.com/sitefinity-cms/cloud

About Progress

Progress (NASDAQ: PRGS) provides the best products to develop, deploy and manage highimpact business applications. Our comprehensive product stack is designed to make technology teams more productive and we have a deep commitment to the developer community, both open source and commercial alike. With Progress, organizations can accelerate the creation and delivery of strategic business applications, automate the process by which apps are configured, deployed and scaled, and make critical data and content more accessible and secure—leading to competitive differentiation and business success. Over 1,700 independent software vendors, 100,000+ enterprise customers, and a three-million-strong developer community rely on Progress to power their applications. Learn about Progress at www.progress.com or +1-800-477-6473.

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