cloudGeometry

SaaS App Platform for Global Non-profits and NGOs

Case Study

Multi-tenant collaboration unlocks digital productivity for hands-on charity, community, NGOs and global community orgs

Discover how a versatile SaaS app platform designed by CloudGeometry helps non-profits and NGOs streamline digital engagement. Learn about the benefits of secure identity management, multi-tenancy, and flexible billing for mission-driven organizations!

INDUSTRY

Non-profits & NGOs, enterprise social networking, engagement management, events

SOLUTION

Customizable B2B Mobile/Web App, secure multi-tenancy, automated data partitioning, in-app messaging

CLIENT

NGO SaaS Startup

CloudGeometry

NGO SaaS

Social relationships are the lifeblood of community and stakeholder engagement. Mission-driven organizations, such as nonprofits and NGOs, want digital interactions easier for their stakeholders and chapters: connect in real-time, create ad hoc teams, update project channels, connect via in-app messaging, and share collaboration content.

Our client, an NGO SaaS Startup, conceived a platform tailor-made to simplify digital adoption by charities and NGOs. It featured a modern, versatile front-end app, leveraging data, and cloud infrastructure all founded on the economics of SaaS. Organizations targeted were as diverse as Red Crescent/Red Cross groups in Africa to European Chambers of Commerce.

The Challenge

In the digital economy, affiliate and mission-based organizations face the threat of erosion and fragmentation at the hands of social media tech giants. They lack infrastructure and technical resources to build and run modern data and cloud platforms. The NGO SaaS Startup wanted to meet the challenge with a highly adaptable front-end and back-end that could avoid imposing undue burdens of customization on their NGO customers, including:

- Versatility across a wide variety of use cases
- Common services from coherent onboarding to billing and metering
- Secure identity management
- Tenant & platform Analytics

The Solution

Our NGO Startup client needed CloudGeometry to design, build, and operate a versatile end-to-end architecture. Their vision was to serve end-users ranging from occasional volunteers to first responders to association administrators – all of whom could drive momentum in their mission by digitizing personal and organizational productivity. CloudGeometry laid out technology strategies and design patterns by relying on best practices outlined by the AWS SaaS Factory. Key features of the solution:

Customizable mobile app experience
End-to-end app creation & product management; prototyping, A/B tests, feature iteration, full QA process

SaaS management & operations
Automated infrastructure management rolls changes simultaneously across all tenant environments

Billing & metering
Integrated subscription management combining application enablement, content operations, and multi-tier sub-accounts

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NGO SaaS

The Solution

- Robust identity management is essential to flexible, cost-effective SaaS. Fine-grained user credential structures make authentication seamless across different application services from in-app chat to fundraising. This works by binding data operations for each user to a unique token. This in turns binds the appropriate security and identity access roles through to that NGO's unique platform services. That securely routes any request across different functions to each isolated tenant-specific database.

- Multi-tenancy delivers another complementary benefit: each tenant NGO gets its own unique admin dashboard. Power-users and analysts get direct insights into how their end-users take advantage of digital connection and interaction.

- CloudGeometry's SaaS Multi-Tenancy Architecture also delivers automated, granular management processes, built-in. Routine operations, from new tenant deployment to publishing custom mobile apps to the App Store set up for reusability. Each new tenant is deployed with its own incremental database instance on Amazon RDS for PostgreSQL. The RDS database is cloned and pre-populated with active application data, ready-to-consume for tenant app administrators. Using Amazon RDS slashes administrative costs, as DB instances are pre-configured with parameters and settings. Frictionless automated backup frees up precious data management resources for value-added tasks like end-user analytics.

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NGO SaaS

The Solution

- Consistency across the data environment also simplifies subscription administration. CloudGeometry created a flexible approach to billing and metering services. As a result, the NGO Startup could evolve its SaaS business model by learning from its customers' real-world experience. Ultimately, the best mix turned out to be a blend of the number of user queries per tenant, a monthly fixed fee, and variable pricing per customer application features deployed.

The Benefits

Backed by CloudGeometry architecture and implementation expertise, this NGO Startup lowered the barrier to digital community building in markets as diverse as Kenya and Korea. Tenant applications are easily customizable, readily configurable across a broad range of use cases – accelerating SaaS platform pay off faster as new opportunities for growth emerge.

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CloudGeometry

Technology Solutions & Services
to build, optimize and run your cloud software and operations.

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TECHNOLOGY SOLUTIONS

APPLICATION MODERNIZATION
Transform Legacy Systems for Future-Ready Innovation

CLOUD COST MANAGEMENT
Optimize Cloud Spending for Maximum ROI and Efficiency

AI & DATA
Achieve breakthrough automation and analytic insights via cutting-edge data strategies

SECURITY AND COMPLIANCE
Reinforce your cloud infra, workload, operations, and development end-to-end

FOUNDATION SERVICES

CLOUD INFRA & OPS
Robust Infrastructure Solutions for Seamless Operations

- DevOps as a Service
- Managed Cloud Operations
- Cloud Spend Optimization
- Resilience, Continuity & Backup
- AWS Well-Architected

MODERNIZATION & MIGRATION
Smooth Transitions to Modern Architectures with Minimal Disruption

- Application Modernization
- Kubernetes Adoption
- AWS Database Migration
- Data Engineering Operations
- Data Integration
- Data Migration
- Cloud Migration & Adoption

ADVANCED SERVICES

CLOUD-NATIVE DEVELOPMENT
Build Scalable, Resilient Applications with Cloud-Native Technologies

- CI/CD
- Multi- Platform App Design & Development
- Cloud-Ready Teams
- Enterprise SaaS Modernization
- Multi-Tenancy SaaS
- B2B Customer Success Engineering

CLOUD-NATIVE OPERATIONS
Streamline Operations with Advanced Cloud-Native Practices

- Platform Engineering
- Workload Management
- Monitoring & Observability
- Infrastructure Management

AI/ML & DATA SERVICES

AI/ML & DATA
Leverage Advanced Analytics and Machine Learning to achieve exponential acceleration in the ROI of your data assets

- AI/ML Engineering for Data Analytics
- Generative AI
- Traditional ML for Data Analytics
- AI/ML Development and and Data Science
- Data Engineering for MLOps

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San Francisco
New York
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Tel Aviv

CloudGeometry delivers expert technical services, helping our clients unlock the full potential of cloud-native open source tooling and commercial platform technologies.

With roots in Silicon Valley, we've seen firsthand what works (and what doesn't). Count on CloudGeometry to accelerate application modernization, Kubernetes adoption, developer enablement, secure multi-tenancy, AI/MLOps, DevOps automation and more.

- As **AWS Advanced Consulting** partners, our certified solution architects and platform engineers help address the range of challenges facing enterprise innovators and venture funded startups alike.

- The **Cloud Native Computing Foundation** has accredited us as a **Kubernetes Certified Service Provider**.

- We serve as charter contributors to the **Linux Foundation Data & AI Commons** (LF Data & AI), supporting a diverse, sustainable ecosystem for open source data and AI technologies.

Over the last decade, we've built and deployed hundreds of big, fast full-stack apps with well-engineered cloud infrastructure across industries: Financial Services, Industrial Automation, Healthcare, AdTech, Consumer-grade Mobile, smart devices, and more.

From enterprise upgrades to data engineering to cloud-native scale-out, CloudGeometry helps you plot the shortest path across all dimensions of modern cloud software engineering.

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SaaS

Amazon Kinesis

AWS Lambda

Amazon Redshift

AWS Database Migration Service

kubernetes CERTIFIED SERVICE PROVIDER

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