



# SaaS Microservices Unlock New Revenue Beyond Enterprise

## Case Study

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SaaS Architecture  
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# SaaS Microservices: Unlocking Revenue Beyond Enterprise

Discover how CloudGeometry helped a Fortune 500 media company's digital division expand its SaaS offering to target SMBs with precision-targeted OTT video ads. Learn how microservices and multi-tenancy architecture enabled new revenue streams!

**SINCLAIR**  
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## INDUSTRY

Digital Media & Marketing

## SOLUTION

Multi-tenancy SaaS, Microservices integration, Self-service onboarding & billing, Automated Tenant Provisioning & Deployment

## CLIENT

Sinclair Media

# Sinclair Media

Our client, the digital division of a Fortune 500 media company, has ridden the wave of OTT (over-the-top) video ads across high-value audiences like YouTube, Hulu, social media and more. The business has grown on the strength of its agency and global brand customers, providing precise geo-targeted audience access to integrated feeds from over 150 ad exchanges and streams, processing tens of billions of ad calls a day.

## The Challenge

As the 2020 pandemic lockdown caused digital media consumption to skyrocket, the company set out to open a new market for its SaaS product: precision-targeted OTT video ads by SMBs targeting their local markets. It meant opening a completely new segment of the market. The new product offered the benefits of real-time analytics and bidding management engine — but without the large-scale advertising fees traditionally associated with global-brand-to-agency supply chains.

Building out a tiered self-service offering by extending their multi-tenancy architecture meant they could sell to local businesses at a much more attractive price point. By leveraging the business logic of their existing campaign workflow and management platform, they could meet Time To Market objectives without the need to invest in a massive refactoring of their operating platform. This meant adapting functionality for campaign creation, secure data storage for creatives and marketing data, user data isolation, campaign progress real-time reporting, and budget management.

### Tenant onboarding / provisioning

Completely automated infrastructure resource provisioning via autoscaling of [Amazon EKS](#) pods to extend across existing AWS platform services

### Secure tenant config & metadata

Per tenant configuration and metadata is stored securely in [shared S3](#) and [Amazon Aurora RDS](#) DBMS storage; data isolation implemented on the application level

### Data Science Automation

Streaming data via [Kinesis](#) tracks queues, async data processing in real-time. Cloudwatch, Grafana [integration](#) configured to specific internal platform APIs



## The Solution

To achieve maximum leverage from their existing enterprise-scale bridge model SaaS platform already running on AWS, the company enlisted CloudGeometry. The goal was to architect and implement microservices in a more flexible shared multi-tenancy strategy known as the “pooled model”. It also delivered three key benefits that optimized the existing Enterprise application stack.

- Campaign creation and management for this new class of customers is built out with queuing logic running on demand, against existing code and APIs. This approach eliminated the need to re-implement complex campaign logic for targets, tactics, advertisers, creatives, etc. Configured as a unified service, tenant context for each unique user/customer is managed via secure session tokens. Bids and placements from these small customers are thereby integrated into the same real-time analytics and bidding management engine.
- Historical reporting is largely reused from existing data infrastructure, to ensure data consistency. However, in order to speed this up for the new Pooled Services SaaS model. CloudGeometry also recommended refactoring the logic for existing enterprise-grade reporting services, to split it between a set of proxy servers and a back end. This reduced the reporting code base several fold, and cut reporting cycle time 10x across all users, both for SMB and enterprise.
- Moving from a small number of large customers to a large number of small customers required a new mechanism for managing payments. Cloud Geometry integrated payment card processing through a billing module that works with a commercial payment service. It records and reports the ad spending balance to each individual user/customer in their individual account

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## The Benefits

By expanding to a Self Serve multi-tenancy platform, CloudGeometry helped this client reach new market tiers by extending their existing AWS enterprise platform capabilities. Without losing critical momentum of their high-growth enterprise core product team roadmap, the client could now unlock previously unavailable revenue streams.

Its new, smaller customers can also take complete ownership of their advertising spend: to quickly create and manage campaigns; get real-time performance analytics; and achieve a virtuous cycle of ad spending ROI.

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# Technology Solutions & Services

to build, optimize and run your  
cloud software and operations.



cloudGeometry

## TECHNOLOGY SOLUTIONS

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### 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

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### 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

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### 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

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### 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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**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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CLOUD NATIVE  
COMPUTING FOUNDATION

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