



Blue Trail Software

Cloud & Enterprise Tools

Offering

Cloud & Enterprise Tools: Helping SaaS, logistics, medtech, and enterprise platforms modernize infrastructure, implement CI/CD pipelines, and achieve zero-downtime deployments.

Project Details

- **Client:** Center for the Collaborative Classroom (CCC), a nonprofit provider of literacy and community-building curricula used by schools across the U.S.
- **Industry:** EdTech / Nonprofit SaaS
- **Engagement Type:** Long-term cloud modernization and DevOps automation partnership
- **Services Used:** Architecture migration including cloud database adoption (DynamoDB), Golang/Angular modernization, CI/CD pipelines, GitHub Actions automation, observability & monitoring, security enhancements, agile process improvements

The Challenge

CCC partnered with BTS more than a decade ago to evolve its digital learning platforms. Early development details are less documented, but as the platform scaled, new challenges emerged:

- Legacy architecture and static content slowed updates and limited flexibility
- Risk of downtime during long, sequential deployments (1-2 hours)
- Growing need for modern DevOps practices, monitoring, and faster releases
- Client expectation for frequent (bi-weekly) deliveries and accurate reporting across environments

BTS Solution

BTS initially developed new applications, such as the Organization Admin and Learning Portal Content module, to expand CCC's capabilities. Over time, we modernized CCC's platform with a focus on scalability, automation, and zero-downtime reliability:

- **Application Modernization:**
Migrated from PHP and static HTML to an Angular frontend and Golang backend, integrating a CMS with DynamoDB for dynamic content management, reducing dependency on manual updates.
- **CI/CD Automation:**
Replaced Jenkins with GitHub Actions to handle deployments and automated unit testing.
- **Zero-Downtime Deployments:**
Introduced blue-green deployment strategies, enabling safe hotfixes even during working hours.
- **Monitoring & Observability:**
Integrated Datadog for performance metrics, error detection, and proactive issue resolution.
- **Agile Collaboration:**
Established daily standups and Slack-based communication to improve transparency and reduce delays.
- **Developer Enablement:**
Improved local dev environments with IntelliJ and Delve, allowing replication of environments within seconds.



Impact & Results

Through BTS' ongoing support, CCC now operates a modern, enterprise-ready platform:

-  **Deployment acceleration:** Reduced from late-night, hours-long releases to automated, parallel deployments in minutes.
-  **Zero downtime:** Blue-green deployments ensure continuous availability.
-  **Faster time-to-market:** Supported a bi-weekly delivery cadence (contingent on CCC providing a clear product roadmap), enabled by improved agile practices.
-  **Improved stability:** Higher test coverage, proactive monitoring, and streamlined error detection.
-  **Stronger security & compliance:** Proactive vulnerability assessments and secure data handling.
-  **Developer efficiency:** Faster local environment setup and automated testing reduced friction and errors.

Partnership Reflection

BTS has been a trusted partner to CCC for more than a decade, evolving their infrastructure while strengthening trust and collaboration:

- **Proactive communication** kept CCC informed about deployments and system maintenance.
- **Agile alignment** improved delivery predictability and maintained independence without micromanagement.
- **Enhanced enterprise readiness** for daily operations and long-term scale, while leaving room for further product discovery on CCC's side with BTS supporting through agile expertise and guidance.

With BTS as a strategic partner, CCC continues to deliver reliable, modern digital learning experiences to educators and students nationwide.

Client Testimonial

 *BTS has been a trusted development partner for Collaborative Classroom, playing a key role in the evolution of our Learning Portal. Their team combines technical expertise with reliability and professionalism, helping us modernize applications and streamline deployments. What sets BTS apart is the way they communicate and coordinate—keeping our goals in focus while managing projects with clarity and consistency. With BTS, we've been able to scale confidently and continue delivering high-quality digital learning experiences to schools nationwide.*



Hernan Solorzano
Director, Technical Development

