Integrating Innovation – How Huddle Tech and DeckPrism United to Power a Better Sports Betting Experience

A Case Study of Huddle

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INTRODUCTION

In the fast-paced world of sports betting, innovation is not just an advantage - it's a necessity. The merger of **DeckPrism Sports (DPS)** and **Huddle Tech** marked a transformative step in the industry, uniting two distinct but complementary strengths: DeckPrism's cutting-edge sports models and trading expertise with HuddleOS's cloud-native, automated infrastructure. The goal was ambitious: to create a unified platform capable of delivering unparalleled speed, precision, and scalability. This integration, however, posed significant technological and organizational challenges, requiring strategic reengineering, phased rollouts, and a collaborative effort across multiple teams. The result is a state-of-the-art platform that redefines the sports betting experience, setting a new benchmark for efficiency, accuracy, and innovation.

In addition to the programming language challenge, DeckPrism's existing **.Net monolithic** architecture relied on RabbitMQ for messaging and MS SQL Server as a database—technologies that didn't align with HuddleOS's cloud-native, automated deployment model. The monolithic nature of the system also presented coordination challenges, as the increased number of developers working on the codebase made it difficult to avoid merge conflicts and maintain efficient development workflows. Moving from DeckPrism's on-premises deployment to HuddleOS's automated cloud environment was essential to achieve the scalability and flexibility both companies envisioned.

Ultimately, addressing these challenges involved reengineering key components of DeckPrism's system to integrate seamlessly with HuddleOS's cloud-native infrastructure and **microservices architecture**. By transitioning to the cloud and adopting a more modular approach, the team gained the scalability, automation, and efficiency needed to support a growing user base and rapidly evolving sports offerings.

PHASED MIGRATION FOR CONTINUOUS SERVICE DELIVERY

To maintain continuity of service, the integration work was broken into clear phases, each designed to address a specific aspect of the migration while minimizing disruption for both DeckPrism and HuddleOS customers.

Integrating DeckPrism as an Odds Feed Provider: Initially, DeckPrism was integrated as an odds feed provider by utilizing existing RabbitMQ topics to subscribe to the generated odds. The team mapped the models between DeckPrism and HuddleOS, including transitioning from sliding lines markets to fixed lines markets. This allowed HuddleOS customers access to DeckPrism's high-quality models without requiring immediate, large-scale changes to the existing systems.

Enhancing HuddleOS Models with DeckPrism's Offerings: By using DeckPrism's main betting lines to enhance the accuracy of HuddleOS models, the team implemented a coordination mechanism that allowed both platforms to function in tandem. This integration expanded the offering to include markets from both DeckPrism and HuddleOS, creating a more comprehensive market selection for customers. This enabled Player Props, Micro Markets as well as three-way markets.

Porting Models to Mercury with Consistent Parameters: To ensure DeckPrism's models maintained their accuracy, the team ported these models into HuddleOS's Mercury platform, using consistent parameters from DeckPrism's original infrastructure. This allowed for reliable model performance during the transition.

Parallel Testing of New Models: Extensive testing of the new models was conducted in parallel with the existing systems, allowing the team to compare results and ensure quality before the full transition.

Implementing a New Projections Data Pipeline: To finally decouple from DeckPrism, the team recreated and reimagined DeckPrism's projections data and workflows for managing model projections (initial model inputs), previously generated through disparate processes and spread across multiple data sources. Using modern technologies like Snowflake, Airflow, and Python, the team developed a new projections data pipeline to streamline the operational flow of setting up matches, player props, and micro-projections, optimizing the accuracy and efficiency of the unified platform.

Staggered Rollout Using a Sports Schedule: Leveraging the staggered sports schedule, the team rolled out one sport at a time, allowing for careful testing and feedback before moving on to the next. This approach reduced risk and made it easier to address any sport-specific issues as they arose.

Final Transition of Entire Sports Offering and Data Center Decommissioning: The integration culminated in a full migration of the sports offerings, with all sports now running on the newly unified platform and benefiting from the combined strengths of DeckPrism's models and HuddleOS's infrastructure. With this transition complete, the team is able to decommission DeckPrism's physical data center, unlocking significant cost savings and streamlining operations. Overall, by fully leveraging HuddleOS's cloud

OUTCOMES AND LESSONS LEARNED

By following a phased migration and leveraging HuddleOS's cloud deployment, the teams successfully integrated DeckPrism's IP and technology with minimal disruption. This structured approach allowed us to provide uninterrupted service to our clients while gradually rolling out the unified platform. The integration effort was a true collaboration, bringing together expertise across quant, product, data, backend, frontend, and trading teams. Each group played a crucial role: quants ensured the accuracy of the models, product teams defined integration requirements, data teams reimagined the data pipeline, backend and frontend developers embedded new functionalities seamlessly into HuddleOS, and the trading team conducted extensive pricing UAT (User Acceptance Testing) to verify market accuracy and ensure seamless transitions.

The C++ knowledge gap was overcome through strategic reimplementation, which ultimately improved the speed and scalability of the models, aligning with HuddleOS's modern, microservices-based architecture.

The transition also underscored the value of a staggered rollout, with the sports schedule guiding the timeline for migrating each sport one by one. This methodical pace ensured that both platforms could maintain quality and stability throughout the process, allowing us to address any issues early on, before they could impact customers.

LOOKING FORWARD: A STRONGER, UNIFIED PLATFORM

The successful migration has positioned the new, unified platform as a leader in the sports betting industry, combining DeckPrism's state-of-the-art predictive models with HuddleOS's robust, cloud-native infrastructure. This integration not only provides clients with faster, more reliable updates and improved pricing accuracy but also creates a more scalable platform that can support new features and future market expansions. The strength of DeckPrism's cutting-edge models has added significant value to the platform, enhancing its precision and reliability.

From a trader's perspective, the unified platform brings greater efficiency, with streamlined processes and automation that allow traders to cover more markets and events with less manual intervention. Importantly, traders now operate from a single, unified back office, eliminating the need to switch between different applications. This consolidation enables traders to manage all operations within one platform, allowing them to focus on higher-level strategic decisions and make real-time adjustments with improved accuracy and agility.

The integration has also enabled Huddle to ship changes more effectively by allowing a greater number of people across the organization to contribute seamlessly. It establishes a consistent, **unified approach to creating new markets, generating Same Game Parlay (SGP) offerings, and managing the odds pricing lifecycle.** Additionally, the integration extends to the wider platform, enabling smooth connections with critical systems such as the **Managed Trading Service** (MTS), liabilities management, and the betting engine.

For other companies considering similar mergers, this project serves as a model for careful planning and phased integration. From reimplementing code to leveraging automated cloud deployment, the migration of DeckPrism's models into HuddleOS demonstrates that, with the right strategy and technologies, even complex systems can be seamlessly merged to create a powerful, future-proof platform.