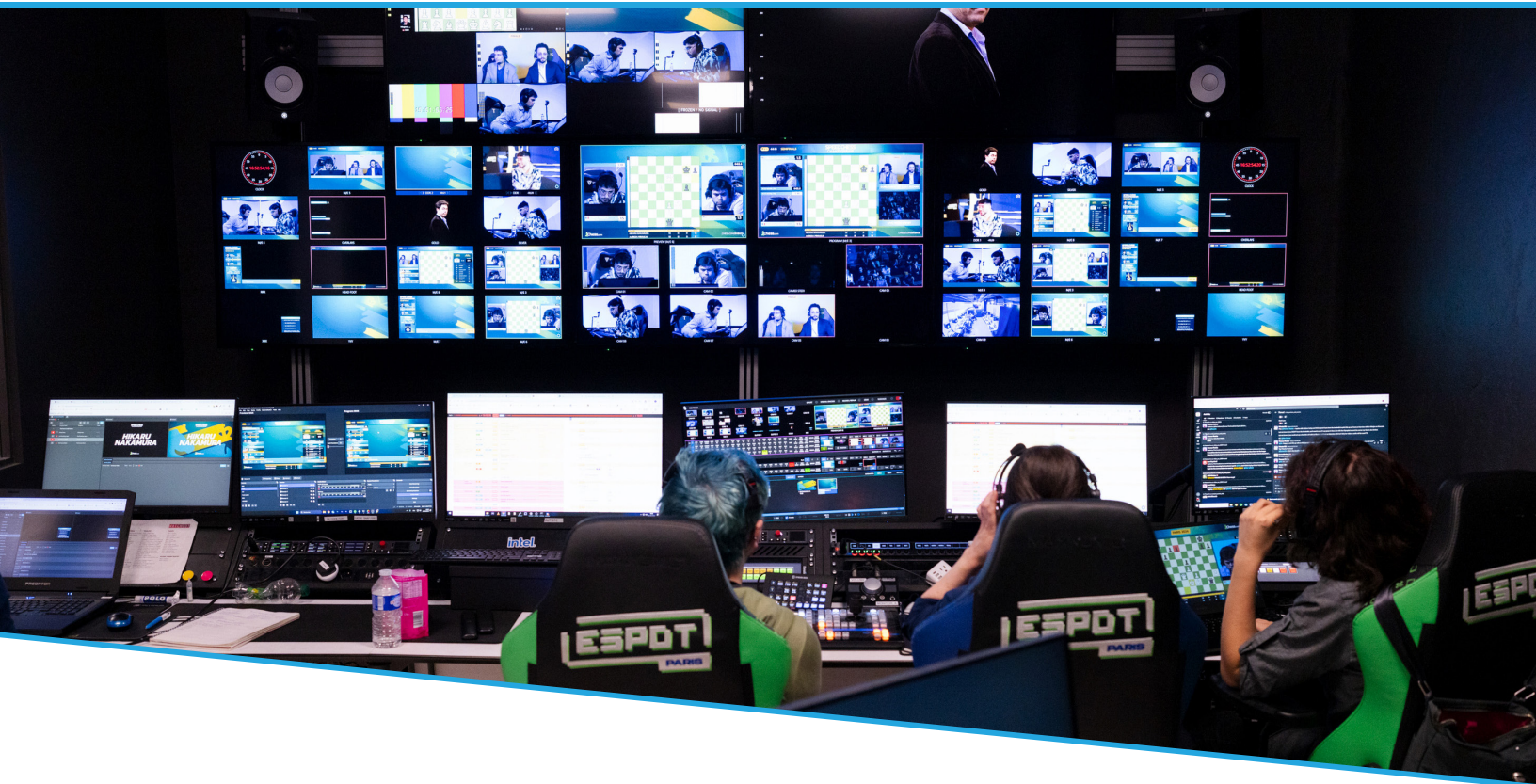


Chess.com Masters the Move with Software Defined, Cloud Native Productions with Advanced Systems Group



When you think about sports, chess may not be the first thing that comes to mind. However, its growing popularity and widespread appeal have firmly established it as a competitive and engaging sport. High-profile endorsements, celebrity appearances, superstar matches in partnership with NFL Films, and popular series like Queen's Gambit have all contributed to its rise in popularity. As the #1 platform for online chess, Chess.com eliminates geographical barriers, enabling people worldwide to learn, compete, and connect within a vibrant and supportive community. Chess.com has revolutionized how chess is played and consumed, allowing players worldwide to compete in real-time, making learning and improving easier, and delivering great chess content and events to their fans. They organize and produce more than 300 tournaments annually, with some lasting more than eight hours and bringing in more unique views in a single tournament than the Super Bowl!



ADVANCED SYSTEMS GROUP

asgllc.com info@asgllc.com 510 654 8300



ASG Customer Story: Chess.com

How do these productions all come together? How do they deliver high-quality content to their global audience while monitoring the live broadcasts to provide a smooth viewing and playing experience? Like many growing content creators, Chess.com had stitched together various workflow tools and technologies including consumer-grade streaming software, basic webcams and microphones, manual configurations, and monitoring across several platforms. This setup involved exceptional creative problem-solving to manage the live production of tournaments and games. While looking for a more agile and scalable production platform to meet the needs of millions of chess enthusiasts and its growing AV production team, Chess.com's Director of Broadcast Engineering & Production, Mike Buetsch, approached his trusted partners, Advanced Systems Group (ASG) Account Manager, Jodie Capriotti and Chief Cloud Officer, Claudia Souza, both of whom he had worked with in his previous role at Electronic Arts, to engage ASG's Cloud Team to design, deploy, and support their virtual production environment.

Production Challenges

What steps do you take when you're challenged to operate entirely with a remote workforce spanning the US and Europe without a physical studio or central equipment room? How do you design a production workflow that enables remote contributors, operators, and producers to collaborate without being in the same location? You leverage cloud infrastructure and software-defined tools that allow the production team to control, communicate, and monitor remote contributions from tournament players, hosts, commentators, and the occasional brick-and-mortar studio (like the collaboration with NFL Films on the series Blitz Champz). How do you incorporate improved workflows and processes to establish a reliable remote live production environment that supports their mission to grow the game of chess?



Along with the complexities of coordinating between commentators, players, and production staff, Chess.com was experiencing technical difficulties when it came to latency and software glitches. Chess had out scaled the capacity of their current production workflows.

To Michael Buetsch introducing agility and scalability in their production technology workflow was critical to supporting the growth of their event productions. "We knew we had reached our production limits and that it was time to elevate our productions into a robust content machine, making it a place to support our fans, make it more interactive, and cater to the diverse needs of players and enthusiasts to cultivate an engaged community."

A Challenging Production for a Challenging Sport

"This production is the most complex I've ever worked on, particularly due to the graphics-heavy nature of Chess.com's broadcasts. We typically handle 8 to 10 graphics channels, with up to 90 live cameras. Everything needs to be orchestrated", shares Buetsch. "We need orchestration of different elements like APIs that sync data from the website with the commentators' actions. Cameras and graphics are moving together. We work with 10 to 15 production partners working on isolated feeds and a REMI site with 200 to 300 transmission lines."



Mike Buetsch, Director of Broadcast Engineering & Production, Chess.com

Mastering the Move

What's striking is that the entire Chess.com team operates virtually across 60+ countries, not to mention the millions of viewers, and chess enthusiasts worldwide who engage in the tournaments and the platform in general. "When Chess.com came to us, they had a punch list of what they wanted to do," adds Oskar Szydlowski, Cloud Engineer at ASG. "We began by comprehensively understanding their requirements, wish list, previous experiences, and successful practices. Once we had a deep understanding of their current workflows and vision, we were able to design a solution optimized for their virtual broadcast production needs. This workflow could be deployed and validated using entirely cloud-based services and infrastructure." What was designed, built, and deployed, including entirely remote training, was a scalable cloud production control room, providing Chess.com with a comprehensive solution for end-to-end remote production.



Oscar Szydlowski, Cloud Engineer, ASG

"We were able to integrate our global remote production team, all remote participants, talent, commentators, video, and audio feeds from across the globe into a virtual production environment. Real-time content ingest, instant replay, a full intercom system, audio mixing, and video switching were all facilitated by operators in their homes," adds Buetsch. "Our new workflow offers remarkable flexibility, as we can scale up or down depending on demand, the size of the event we're producing, or whether we need to expand our team and bring in more technical operators remotely. Partnering with ASG's Cloud Team continues to be a very collaborative process." Unlike all-in-one solutions, ASG combined best-in-class cloud-based production tools such as Vzrt's Viz Vector, and Viz Flowics, Viz 3Play, Singular, Telos Infinity VIP, Zixi, Ross Gallery Sienna, and Grass Valley AMPP, integrating them seamlessly in an Amazon Web Services (AWS) environment to create a comprehensive solution. This met the needs of their complex productions.

Buetsch shares, "Although handling such a large number of cameras can be challenging, the cloud has made it much easier. We can quickly scale up resources, including encoders and decoders, and wind everything down after the event without worrying about extra rentals."

"The agility provided by the cloud is critical", Buetsch continues. "We've empowered our grandmaster-level commentators to control the broadcast. When they select a new game, cameras, graphics, and animations update automatically, making for a smooth experience. This approach is similar to the NFL RedZone but designed for chess, where the commentators—experts in the game—control the flow, rather than production staff."



ASG Customer Story: Chess.com

“ASG’s Cloud Team understands the latest advancements in cloud infrastructure and software-defined offerings enabling our team to design optimal workflow solutions tailored to our client’s unique needs”, says Szydowski. “We work closely with our technology partners to ensure we can address any technical issues efficiently and collaborate with their development teams to convey our clients’ needs. Alongside our customized integration and consulting services, our cloud strategy has helped Chess.com production teams develop their roadmap for growth.”

ASG + Chess.com: The Next Move

Chess.com is constantly evolving, and a key benefit of being cloud-based is that production can continue while the team experiments with new tools and services tested in ASG’s sandbox environment. “We continuously work with them to iterate and optimize their solution. We can quickly add software we’ve tested in our sandbox environment to enhance their system, on the fly. This encourages innovation without significant risk or upfront investments for the client,” adds Szydowski. “We’re working on scaling this system to allow multiple control rooms simultaneously, theoretically an infinite number”, added Buetsch.



*Claudia Souza, Chief Cloud Officer,
ASG*

“Software-defined, cloud-native production workflows have distinct advantages over traditional hardware-based control rooms and production trucks. Collaborating with Chess.com to fulfill their needs for a scalable and flexible solution that supports their globally distributed team and demanding production schedule has been an effective way to prove this model is not only technically feasible but also commercially feasible. It highlights the fact that this type of production environment can support not only one-off or lower-tier events but also highly complex and demanding production needs.” adds Claudia Souza, ASG’s Chief Cloud Officer.

What started as a need to support a geographically distributed workforce, has evolved into a production environment that is scalable, flexible, and can easily tie into existing traditional broadcast infrastructures. In partnership with the NFL, Chess.com is expanding its audience and promoting the strategic thinking and athletic spirit of both sports by creating chess-themed content and events featuring NFL players, often playing for their favorite charities and being coached by high-level chess players. ASG is committed to continue supporting Chess.com’s production team as they evolve their agile, software-defined production workflows. These workflows are crucial to achieving their mission of growing the game by building great products, making learning and improving easier, and delivering great chess content and events to their fans.

**Ready to discuss how
we can support your
next project?**

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