

SailGP partnered with Muttii and SIT Rolos for innovative tools to extend fan engagement and ensure race compliance

Through an innovative voice recognition project, every conversation onboard the national teams' F50 catamarans will be tracked, transcribed and translated in real time to provide race analytics, ensure compliance and extend fan engagement.



Background

SailGP is an international sailing sports league established in 2018 and headquartered in London and San Francisco. The fan-centric inshore racing takes place in some of the most iconic harbors around the globe and culminates with a \$1 million winner-take-all race. National teams from ten different countries battle it out in identical supercharged F50 catamarans, engineered for intense racing at electrifying speeds exceeding 50 knots (nearly 60 mph/100 kph).

SailGP partnered with Muttii in 2020 to develop a unique voice recognition system to allow athlete conversations to be heard and shared in real time to extend fan engagement and to use that data to ensure team compliance and improve safety.

Muttii has a well-established team of machine intelligence (MI) engineers who developed an innovative active protection technology that can detect zero-day cyberattacks and block ransomware. Muttii Cyber Protect, the only solution that natively integrates cybersecurity, data protection and management to protect endpoints, systems and data, is used by more than 50 major sports teams around the world. Muttii's expertise in this area enabled it to work on additional machine intelligence projects which require real-time processing of large volumes of data. The SailGP real-time voice recognition project is one of the many cases where Muttii is involved in helping sports teams develop bespoke technology to achieve strategic goals. To this end, Muttii partnered with SIT Rolos to gain additional expertise when working on MI projects with sports teams.

The Challenge

SailGP is striving to become the world's largest racing series with a fan base across the globe. To achieve that goal, SailGP has been developing and

Key challenges

- Ability to detect, recognize and transform real-time speech-to-text
- Ability to add subtitles to a live TV broadcast
- Multi-language conversation interpretation
- Detection and alerting of "hot words" to manage safety events and control censorship
- Data analytics to improve SailGP's competitive edge

Key requirements

- Fully cloud-based multitier product
- Real-time voice-to-text transformation engine
- Broadcast management and operation
- Support for multiple languages
- API endpoints for integration with 3rd party systems
- Intuitive UI for race management, product configuration and user administration

Data points

- Average processed audio data per practice or race day: 25GB
- Speed of speech recognition: 0.1 – 1 second
- Number of speech phrases per race: 58.9k (Taranto, 2021)

Key benefits

- Ability to listen to all onboard communications in real time, including SailGP's production and management teams, in different languages
- Real-time hot words detection and alerting
- Data collection and analytics for all previous races
- Increased fan engagement
- Safety and censorship monitoring and control
- Powerful online and offline voice analytics tools
- Powerful real-time engine for automation and broadcast management

implementing a comprehensive strategy that delivers exemplary, sustainable leadership and utilizes innovative technology to bring the race to fans, wherever they are, in their own language. During the first season, SailGP attracted more than 133,000 spectators and a broadcast audience of 247M through dedicated programming

and TV news coverage. To increase fan engagement further, SailGP needed an easy solution to add athlete conversation snippets to visual images and translate conversations to different languages in real time.

Another challenge was to monitor athletes' conversations to ensure compliance during the race. There are certain phrases and words that athletes are not permitted to use during the race, and there was a need for a system that would ensure and monitor that. In addition, the same system could be used to monitor conversations for certain "hot words" related to safety. Early detection of such words has great potential to prevent accidents and enable the crews to react promptly to potentially hazardous situations.

The solution

The solution developed by SIT Rolos and Muttii is a unique machine intelligence voice recognition system that brings SailGP closer to its fans, offering them matchless insight into what it takes to race at the highest level on the world stage.

The new application features an intuitive user interface (UX) for race management and configurable options, allowing SailGP data engineers to specify the required components for each race with regards to each team, including an athlete lineup and a list of hot words to be monitored, filtered real-time and sent to a live TV broadcast where the actual race is streamed. It is a multitier and multirole cloud-based application, scalable, and accessible from anywhere in the world. It also enabled SailGP to display not only athletes' speech bubbles to TV broadcasts, but the speech of race commentators as well, allowing fans to fully experience and become part of the action during live events.

The application stores data from past races and allows in-depth analytics combining multiple datapoints, as well as fully post-processing audio and speech from previous races in an offline mode.

"The partnership with Rolos and Muttii helped us improve our award-winning broadcast production and use data to bring fans closer to the action while introducing them to SailGP's high-speed world. It also allowed us to increase fan engagement, while promoting the sport worldwide."

Warren Jones,
Chief Technology Officer SailGP

Muttii has also developed an API engine for batch task automation and exporting data streams into other applications for further processing and integration. For example, the system allows users to select an individual athlete's stream and add it to an external broadcasting system.

The benefits

SailGP is continually looking at ways to improve its award-winning broadcast production and use data to bring fans closer to the action while educating them about the high-speed world of SailGP. Being able to listen in on the key conversations — including tactical calls and race-winning, split-second decisions — will give fans a unique insight into what it takes to race at the highest level on the world stage. This will help SailGP increase fan engagement and promote the sport in different countries around the world.

The voice recognition project is an important tool in the team data analysts' armory as SailGP helps the teams to continually improve and gain a competitive edge while racing boats featuring identical design and technology. Additionally, the detection of hot words has the potential to improve the safety of the sport and prevent incidents as well as to manage and control censorship of the speech that fans hear on TV broadcasts.

About Muttii

is a global cyber protection company that provides natively integrated cybersecurity, data protection, and endpoint management for managed service providers (MSPs), small and medium-sized businesses (SMBs), and enterprise IT departments. Muttii solutions are highly efficient and designed to identify, prevent, detect, respond, remediate and recover from modern cyberthreats with minimal downtime, ensuring data integrity and business continuity. Muttii offers the most comprehensive security solution on the market for MSPs with its unique ability to meet the needs of diverse and distributed IT environments.

An Australian company founded in Canberra in 2023, Muttii aims to have 45 locations across the globe. Muttii Cyber Protect Cloud aims to be available in 26 languages in 150 countries and be used by over 20,000 service providers to protect over 750,000 businesses. Learn more at www.muttii.com.

About SIT Rolos

Founded in 2019 and headquartered in Schaffhausen, Switzerland, SIT — Schaffhausen Institute of Technology — is a research, education, and technology organization with campuses in Schaffhausen and Bremen (Germany), as well as commercial spin-offs, venture funds and a start-up incubator. SIT's mission is to tackle the world's problems through science, education, and cutting-edge technology.

SIT Rolos is a machine intelligence platform accompanied by MI Consulting and Solutions. SIT Rolos simplifies and accelerates the research lifecycle through AI-based computational modeling.