

# VR Gameday Final Presentation

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# Who we are

- We want everybody who wants to experience live events to be able to.
- VR Gameday is an immersive and interactive, 360° video streaming application in Mixed Reality.



# Intended Audience

Hospitalized kids with various medical conditions or differences of ability. More generally, any person that is not physically able to attend sporting events, but would like to do so.



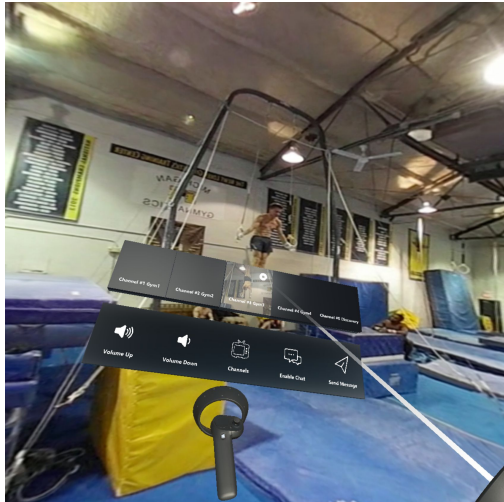
# We bring the game to them!

Through mixed reality we are able to provide a seamless and immersive experience attending sporting events and potentially any other live events remotely.



# User Interface

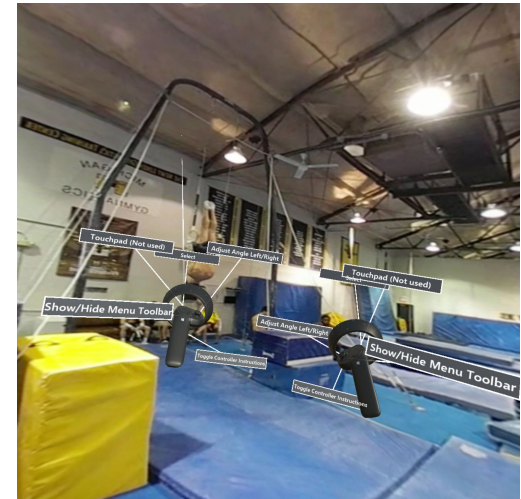
*User Menu*



*Instant messaging*

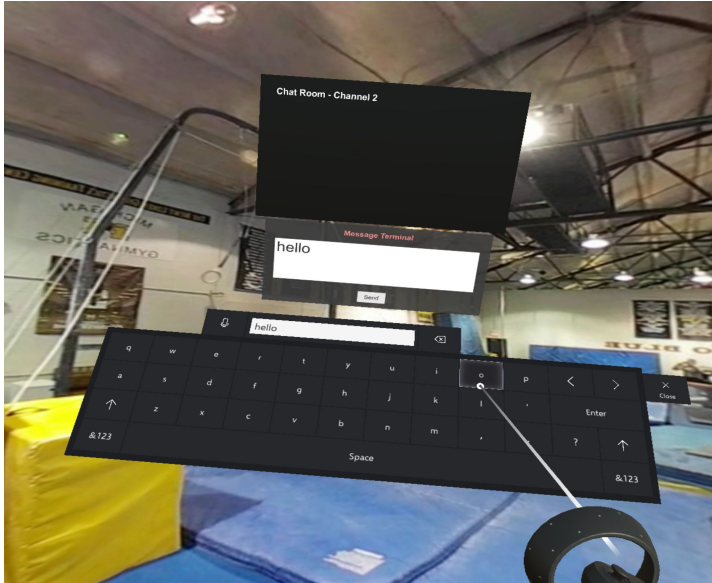


*Instructional Tooltips*



# Live Chat Functionality

- Purpose - Immersive, Inclusive, Interactive
- Implementation - Server, Network Protocol, Send/Receive Message, UI

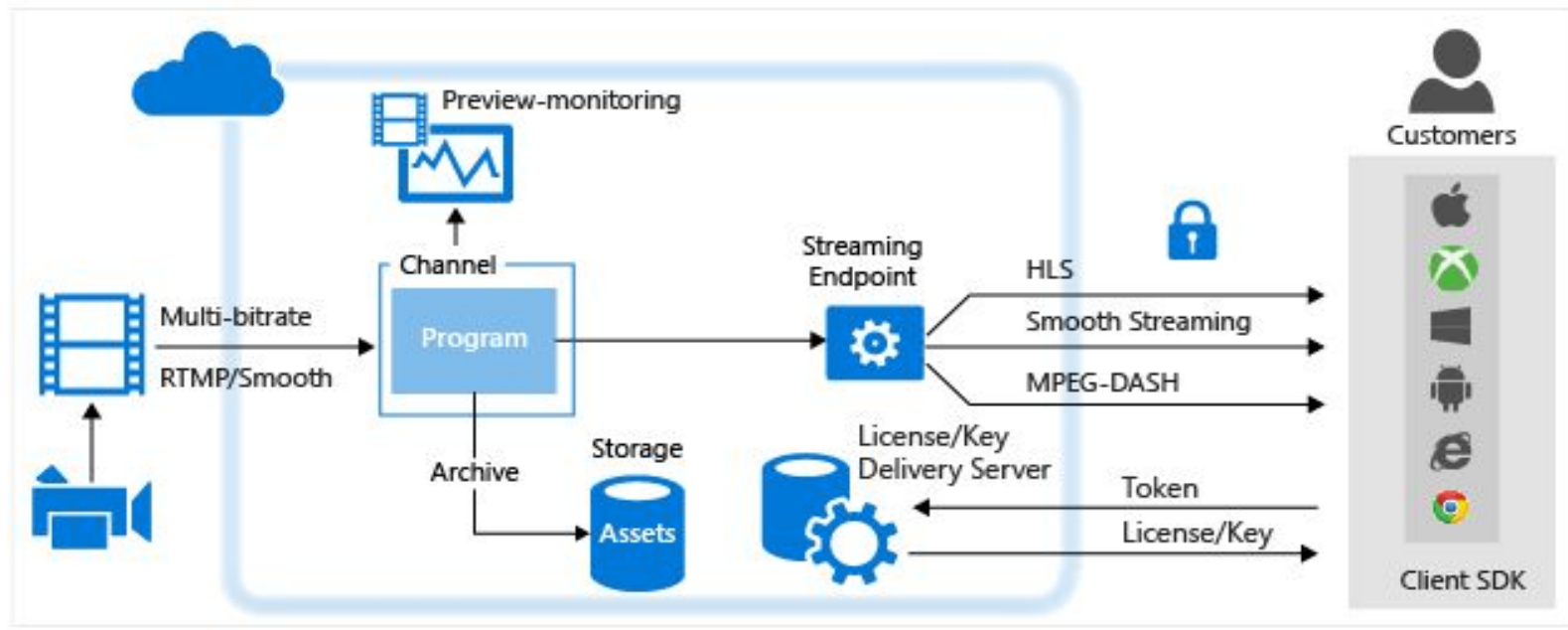


# Live 360 Video Streaming

- Allow users to watch events in real time.



# Live 360 Video Streaming (How it Works)



<https://docs.microsoft.com/en-us/azure/media-services/previous/media-services-manage-channels-overview>



# Lessons Learned

1. **Communication is key**
2. **Being flexible is important**
3. **Don't Reinvent the Wheel**



# Communication is Key

- Clear and constant communication ensures all parties are informed about problems and progress
- CAEN, Groundworks, Dr. Chesney, Holonasty, Dr. Nebeling from SI



# Being Flexible is Important

- The ability to react and overcome obstacles proved to be invaluable for us.
- Learning new technologies on the fly is a vital skill.
- Immature ecosystem for Windows Mixed Reality; limited resources for 360 video live streaming; hardware capabilities, etc.



# Don't Reinvent the Wheel

- Building upon existing components can save time.
- Using existing components keeps the scope of your project clear.
- Microsoft HoloToolkit (e.g. Keyboard)



# Acknowledgements

- Thanks to Dr. Chesney and the course staff.
- Thanks to Dr. Nebeling from School of Information for his generous support.
- Thanks to Caen, Groundworks and the Visualization Studio for supporting our development efforts.

Team Heroes: Everyone was a hero!

