

# COVINGTON

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April 5, 2019

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street, SW  
Washington, DC 20554

**Re: *Ex parte* submission in ET Docket No. 18-295; GN Docket  
No. 17-183**

Dear Ms. Dortch:

On April 3, 2019, Kenneth Edmonds, Director of Government Relations & Public Policy for the National Football League (“NFL”), Carl Mower, Sr., Director of Engineering Location Services for Zebra Technologies, Inc. (“Zebra”), Edward Richley, Engineering Fellow for Zebra, Veronica O’Connell, Principal of TwinLogic Strategies representing Zebra, and the undersigned met with Aaron N. Goldberger of Chairman Pai’s office, Umair Javed of Commissioner Rosenworcel’s office, Will Adams of Commissioner Carr’s office, Erin McGrath of Commissioner O’Rielly’s office, and William Davenport of Commissioner Starks’ office. We discussed the Commission’s proposal to authorize new unlicensed usage in the 6 GHz band.

We emphasized how industrial uses of ultra-wideband (“UWB”) technology in the 6 GHz band facilitates numerous benefits and efficiencies in a variety of settings. We also highlighted how the NFL uses this technology for a variety of services, including fan engagement, broadcast enhancements, and player safety, as illustrated by the attached presentation. We urge the Commission to give close consideration to the engineering solutions proposed by Zebra to ensure that as the Commission expands spectrum for Wi-Fi services, it also protects incumbent users that are utilizing this spectrum in a variety of innovative ways.

Please direct any questions to the undersigned.

Sincerely,

/s/ Gerard J. Waldron

Gerard J. Waldron  
*Counsel for the NFL*

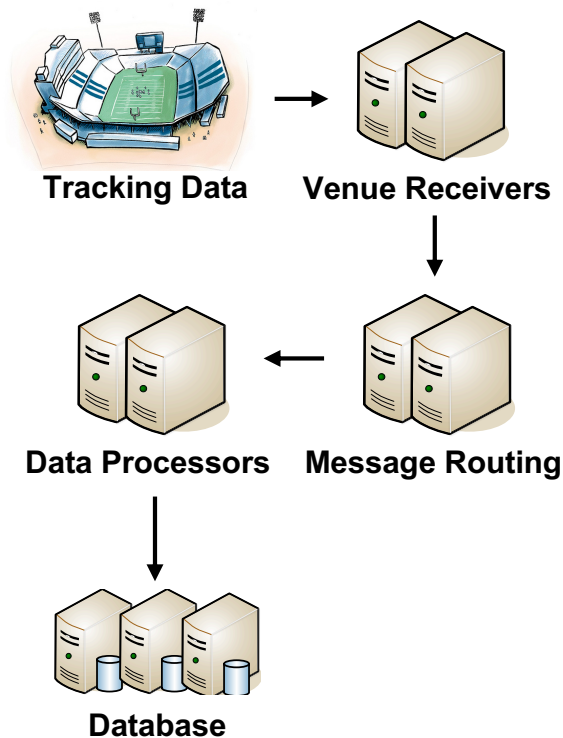
cc: Meeting Attendees

# Tracking System Overview

## Data Capture



## NFL Platform



## Applications

Data Distribution

Health and Safety

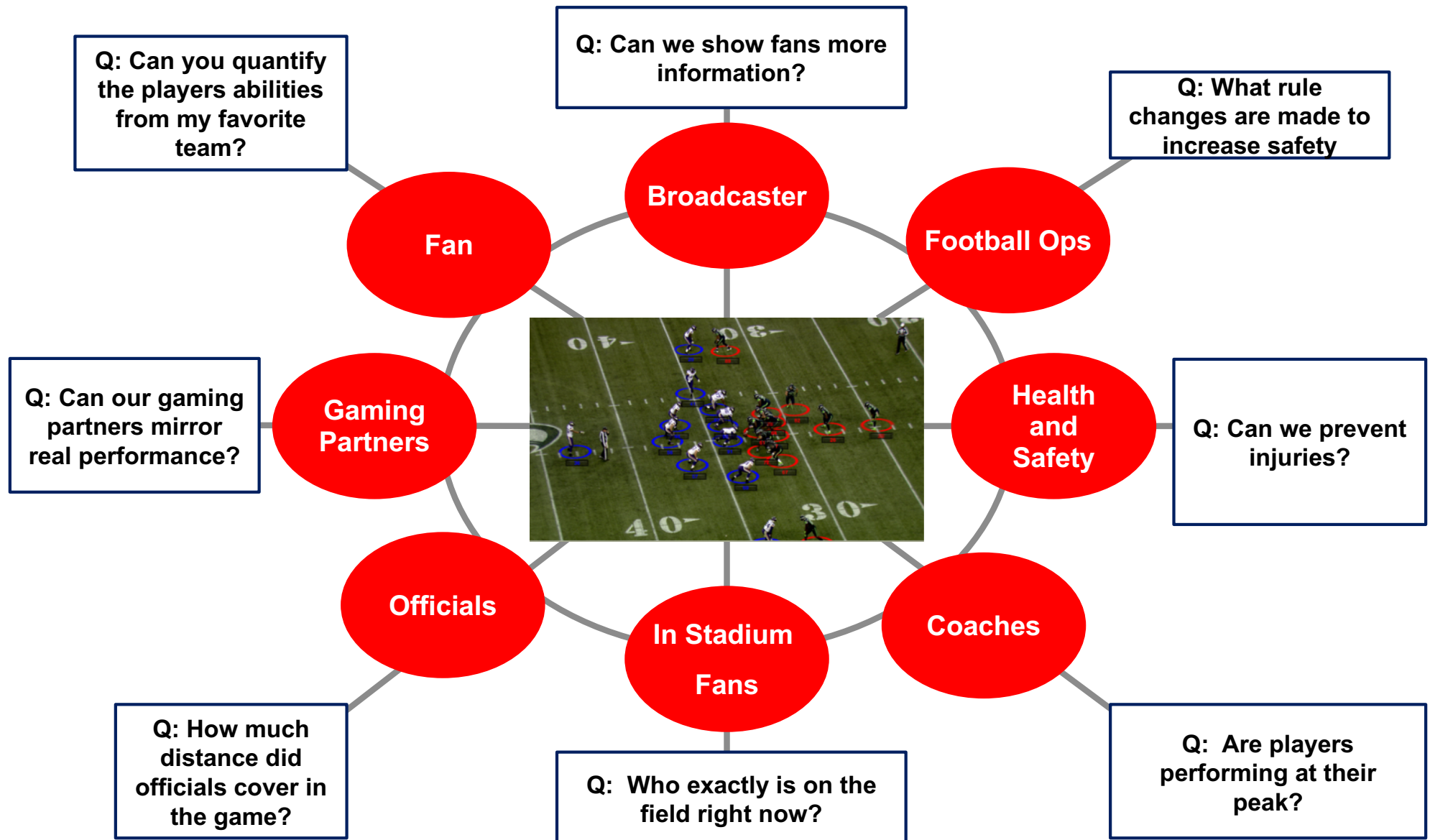
In-Stadium

Media

Scouting/Coaching

Tracking system uses 400Mhz of UWB 6.35Ghz to 6.75Ghz  
Typically all RF coordinated 200Mhz away from tracking system

# Next Gen Stats Use Cases



**NFL's proprietary Next Gen Stats have broad uses across entire NFL ecosystem... fans, players, game, etc.**