

Game-Changing Technology: Microsoft's Impact on the NFL



The National Football League (NFL) has long stood at the intersection of tradition and innovation, delivering one of the world's most exhilarating sports experiences. In its relentless pursuit of excellence, the NFL partnered with Microsoft in 2013 to infuse cutting-edge technology into every facet of the game.

Microsoft has become integral to the NFL's evolution as Microsoft's solutions have enabled the league to operate more efficiently, adapt to new challenges, and elevate performance to unprecedented levels. Central to this partnership is the Microsoft Surface Sideline Viewing System (SVS), a tool that has revolutionized how coaches and players analyze and respond to in-game situations. Beyond the sidelines, Microsoft Teams, Azure, and Power Virtual Agents are empowering NFL teams to collaborate seamlessly, manage complex operations, and forge meaningful connections with fans. Additionally, Microsoft's technology supports critical league activities like the NFL Combine, where the NFL evaluates new talent. Tools like the Combine App streamline the collection and analysis of player data, enabling teams to make better-informed decisions during the recruiting process. By integrating technology into various aspects of the sport, Microsoft and the NFL are redefining innovation in professional football while improving performance and efficiency on and off the field.





The Sideline of the Future

NFL teams used to rely on black-and-white printouts for sideline analysis—a method ill-suited for the rapid pace of professional football. Producing these printouts was slow and cumbersome, involving physical printing and manual distribution. Moreover, they were vulnerable to the elements; rain, snow, or intense sunlight could easily damage the materials, hindering teams from making timely, informed decisions during crucial moments.

In 2014, the NFL took a significant leap forward with the introduction of the Microsoft Surface Sideline Viewing System (SVS), which revolutionized sideline operations and team collaboration. These custom-built Surface tablets provide coaches and players with near realtime, high-resolution images of plays. With SVS, coaches can instantly analyze formations, decipher defensive coverages, and adjust strategies making informed decisions that can alter the game's trajectory. This seamless access to highquality imagery has elevated the precision and speed of in-game adjustments, making SVS an indispensable tool in modern football.

Technology Behind SVS

SVS is powered by a combination of advanced technologies that ensure its smooth performance and reliability. This sophisticated system ensures that coaches and players can access game data instantaneously, empowering them to make realtime, informed decisions.

Azure-Powered Data Processing and Windows

Servers collaborate to manage and deliver game data. Field images are sent to Microsoft Azure, processed, and distributed to sideline tablets within seconds. Windows Servers organize metadata, including down, distance, and yard line, ensuring synchronized, real-time access for immediate analysis and gameplay adjustments.

The SVS Custom Application, built exclusively for the NFL, operates on Surface tablets, offering tools for annotating plays, zooming, and isolating angles for detailed analysis. Profile-specific features allow users to access personalized notes and marked plays on any device, enabling rapid, strategic adjustments during critical moments.

Microsoft Surface Tablets, the backbone of SVS, are rugged, waterproof, and built for extreme conditions. Their high-resolution displays enable detailed annotations, zooming, and multi-angle views, ensuring flawless operation in any weather.

By combining rugged hardware, advanced cloud processing, and a custom-built application, SVS delivers unparalleled capabilities that redefine how NFL teams analyze and respond to gameplay. Integrating real-time data with high-resolution imagery and intuitive tools, SVS ensures coaches and players are equipped to make decisions with unprecedented speed and precision.



SVS Solution Architecture

How SVS Enhances Game Day Operations

SVS empowers coaches to make strategic adjustments almost immediately after a play occurs. By providing real-time access to highresolution images, coaches can analyze opposing team formations, defensive coverages, and individual player movements in detail. This instant insight enables rapid, on-the-fly decisions that can directly influence the game's outcome. Packers Head Coach Matt LaFleur highlights this advantage, stating,

"We constantly use the Surface to make adjustments, and that has a major impact on the game. Some plays that get drawn up on the sidelines are because you see something on the Surface. It happens multiple times throughout every game."

Collaboration between sideline staff and coaches in the booth is also significantly improved, as all team members can view the same images simultaneously on their SVS tablets, ensuring unified and cohesive strategies.

Before the SVS system, coaches only received game statistics in printouts at halftime and after the game, which limited their ability to make timely decisions based on live data. The Game Statistics & Information System (GSIS) integration into the SVS app has addressed this challenge by providing near real-time stats directly within the application throughout the game. Coaches now have enhanced visibility into key metrics such as yardage, player participation, and scoring breakdowns, enabling them to make more informed and dynamic adjustments during play. This improved access to live statistical insights ensures that coaches can clearly understand the game as it unfolds.

The SVS system streamlines access to critical images by leveraging preloaded profiles tailored to each user's role. Position coaches can access profiles specific to their units—offensive coaches, for instance, have profiles displaying only offensive plays, while defensive coaches focus on coverage formations. Players also benefit from these customized profiles, which help them refine their responsibilities during the game. Meanwhile, head coaches can access a comprehensive profile encompassing all aspects of the game, enabling holistic strategic decision-making. This rolespecific customization ensures every team member has the information they need, maximizing efficiency and clarity during the game.

What once took minutes with traditional printouts now takes seconds with SVS, enabling teams to review and react to plays at an unprecedented speed during fast-paced games. By displaying snapshots of each play enriched with organized metadata—such as yard line, down, and distance—SVS gives coaches the exact context they need to make informed, data-driven decisions. This access to precise, actionable insights ensures that teams are always prepared to stay ahead of the competition.

Real-Time Analytics

NFL data analysts have long struggled to manually track statistics and organize data during games. These time-consuming tasks often delay insights, limiting the ability to make timely adjustments that could influence the outcome of a game. Analysts needed a faster, more reliable system to efficiently access and utilize the league's vast data resources, particularly during high-stakes moments.

To address these challenges, Microsoft introduced a new Surface integration tailored to the needs of NFL data analysts. This system provides each club's analyst with a customized Surface device, granting real-time access to league-approved statistics through the NFL's Next Gen Stats (NGS) platform. Automating data collection and organization enables analysts to quickly access and interpret critical game information, focusing on actionable insights rather than manual processing.

Key Features

- **Automated Data Updates:** A PowerShell-driven system updates game data every 30 seconds, ensuring analysts always have the latest statistics.
- **Custom Templates:** Pre-configured Excel spreadsheets allow analysts to filter, chart, and organize data quickly for targeted insights.
- **Customizable Tools:** Analysts can create additional tabs, pivot tables, and charts to tailor data visualization and analysis to their team's specific needs during the game.

Benefits

- **Faster Adjustments:** Real-time updates allow analysts to provide actionable insights immediately after plays occur.
- Improved Game Strategy: Analysts can identify trends in opponent play calling or player performance during games, providing coaches with actionable insights to exploit weaknesses or adjust tactics on the fly.
- Enhanced Collaboration: Shared access in the coaches' booth ensures alignment on ingame decisions, improving strategy execution.

By eliminating inefficiencies and providing tools to analyze more data in less time, this Surface integration empowers analysts to directly impact in-game decisions and team performance.

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NFL Combine App

Evaluating talent at the NFL Scouting Combine has historically been a time-intensive and fragmented process. Coaches, scouts, and general managers relied on manual data collection methods, which often involved juggling spreadsheets and handwritten notes. The lack of a centralized system made comparing performance metrics or tracking player progress difficult. This cumbersome approach slowed decision-making and left teams with limited opportunities to thoroughly evaluate prospects during one of the league's most critical pre-Draft events.

The NFL Combine App has revolutionized this process by serving as a centralized digital hub for data collection, analysis, and sharing. Built on secure and scalable Microsoft infrastructure, the app provides real-time access to key performance metrics such as 40-yard dash times and vertical jump results, as well as side-byside player comparisons, event schedules, and detailed profiles. At each drill station, Microsoft Surface Pro devices are used by National Football Scouting representatives to record prospects' results, ensuring the data is accurately captured and immediately accessible through the Combine app for scouts and coaches. By streamlining these activities, the app ensures scouts can efficiently analyze prospects' strengths and weaknesses, enabling decision-makers to focus on identifying the best talent to fit their rosters. This transformative solution has redefined talent evaluation, making it faster, more accurate, and more effective.

Built on a secure and scalable Microsoft infrastructure, the Combine App leverages Azure to store and process extensive real-time player data. Its backend integrates seamlessly with existing NFL scouting systems, allowing for the sorting, retrieving, and analyzing critical metrics and player histories. This application extends the scouting process beyond the physical event, allowing coaches who cannot attend the Combine in Indianapolis to participate remotely by accessing the same real-time data. Scouts and coaches can collaborate efficiently and make immediate decisions, ensuring a comprehensive and inclusive approach to evaluating talent.

The app's integration with Azure ensures highspeed processing and distribution of performance data, allowing scouts to compare players' metrics instantly. This real-time access transforms the scouting process, enabling teams to focus on building stronger rosters and identifying top talent more efficiently than ever before.

By embedding cutting-edge Microsoft technologies into the NFL Combine, the app has revolutionized the player evaluation process and reinforced the league's dedication to leveraging innovation for enhanced performance. It ensures teams are equipped with the precision, efficiency, and insights needed to excel in one of football's most high-stakes environments, paving the way for sustained success.



Minnesota Vikings Scouting and Operations Transformation

The Minnesota Vikings implemented Microsoft technology to transform their scouting and business operations, driving efficiency, collaboration, and performance.

The Vikings' scouts used to manually review thousands of hours of game footage, causing delays in talent evaluation. With the **Azure-powered Viper system**, over 3,000 hours of video are now centralized in the cloud, enabling scouts to access and analyze footage quickly. This streamlined process saves time and drives data-informed decisions, giving the team a competitive edge. Microsoft technology has also revolutionized the Vikings' business operations, driving efficiency and growth across the organization:

- **Dynamics 365:** Tracks sponsorships, seating, and revenue trends.
- Surface Devices: Increase productivity and streamline tasks like game analysis, reporting, and collaboration.
- Microsoft Teams: Facilitates communication during day-to-day operations and critical events like the NFL Draft.

These tools enable the Vikings to excel beyond the field, setting a standard for operational excellence.



Miami Dolphins Enhance Fan Engagement

The Miami Dolphins manage Hard Rock Stadium, hosting football games, concerts, tennis tournaments, and more. Microsoft's Power Virtual Agents transformed their ability to handle high volumes of fan interactions across multiple channels.

Streamlined Customer Interactions:

- The chatbot embedded on digital platforms resolved 97% of 40,000+ conversations.
- The customer service team experienced a reduced workload, enabling them to focus on complex inquiries.

Improved Fan Experience:

- The virtual agent provides instant access to parking details, ticketing support, and event schedules.
- Fans receive timely, accurate information without delays.

Adaptable Technology:

- Subject matter experts without coding expertise can easily update the chatbot.
- Responses are agile to changing protocols and events.

This integration highlights how Microsoft's technology enables the Dolphins to redefine fan engagement, streamline operations, and elevate the overall fan experience.

Looking to the Future

The partnership between Microsoft and the NFL is a powerful example of how technology can revolutionize high-performance, highstakes environments. The Microsoft Surface Sideline Viewing System (SVS) has redefined NFL gameplay, empowering coaches and players with real-time insights that drive better strategies and faster decisions. Beyond the SVS, tools like Dynamics, Microsoft Teams, Azure, and the NFL Combine App have enhanced team operations, streamlined collaboration, and elevated the league's overall efficiency.

Stories from teams like the Minnesota Vikings and the Miami Dolphins illustrate how Microsoft technology can drive innovation and transform operations in professional sports. The Vikings leverage Microsoft solutions like Azure and Dynamics 365 to streamline scouting, player evaluations, and business operations. Meanwhile, the Dolphins leverage Power Virtual Agents to revolutionize fan engagement, automating responses to routine inquiries while empowering their service teams to focus on complex interactions. Together, these success stories show how Microsoft technology drives efficiency and innovation, delivering measurable results in sports and other precision-driven industries.



To learn more about how Microsoft's advanced cloud and AI technologies are empowering organizations to achieve transformative results, visit <u>Microsoft</u> <u>Customer Stories</u>.

Explore how other organizations are leveraging Microsoft solutions to unlock performance, drive innovation, and achieve their strategic objectives.