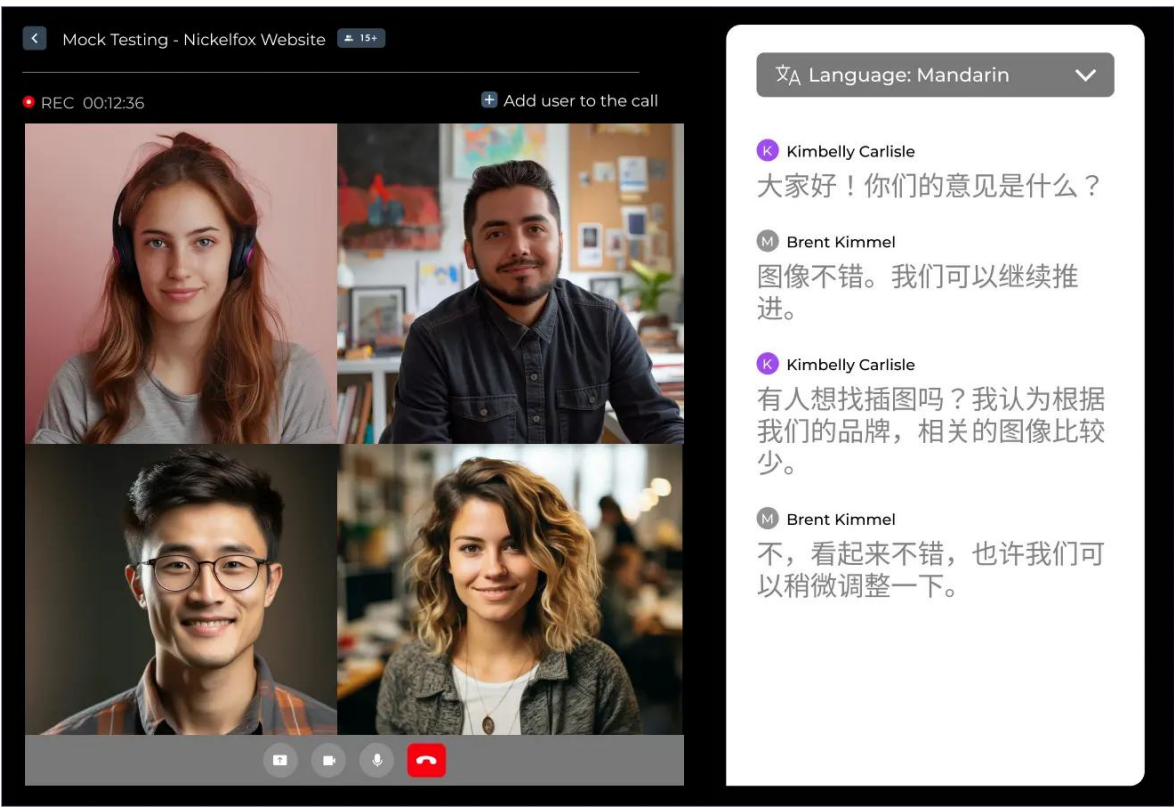


CASE STUDY

# Bot for Captions Translations



SpringCT partnered with a leading technology provider to develop and launch an innovative MS Teams Bot application. The primary goal was to enable users to overcome language barriers by providing real-time captions in multiple languages during Microsoft Teams meetings and events. This ensures that every participant can follow along in their preferred language, fostering inclusivity and effective communication. The solution is now live and delivering enhanced outcomes across their operations.

## Product Features

The MS Teams Bot application integrates seamlessly into the Microsoft Teams ecosystem, offering the following features:

- **Real-Time Accuracy**  
The bot can deliver real-time translation in selected languages with very high accuracy.
- **Support for Over 40 Languages**  
Enables users to communicate effectively across diverse linguistic groups.
- **Effortless Integration**  
Requires no additional effort for integration or deployment within the tenant, ensuring a smooth onboarding experience.

## Technologies Used

- **Frontend (Teams app):** React + TypeScript, Microsoft Teams JavaScript client library (TeamsJS)
- **Backend:** Node + TypeScript
- **Azure:** Azure Web PubSub, Translator, App Service, SWA.

## Key Technical Achievements

- **OAuth and Microsoft Accounts Integration**  
Managing secure authentication and authorization using OAuth, while ensuring compatibility with Microsoft Accounts, presented challenges in maintaining seamless and secure login experiences.
- **Implementing Single Sign-On (SSO)**  
Configuring SSO to provide a unified authentication flow across multiple platforms required addressing token expiration, session management, and security concerns.
- **Ensuring Responsiveness and User Experience**  
Designing a bot that performs efficiently across devices with varying screen sizes and network conditions, while maintaining an intuitive and responsive user interface.
- **Teams App Permissions Management:**  
Handling granular app permissions to ensure compliance with Microsoft Teams policies, while enabling the bot to access only the necessary APIs and user data securely.
- **Configuration and Message Passing Between Applications**  
Establishing seamless communication between the bot, Teams, and other integrated services required efficient handling of configurations and dynamic message exchanges.

## Results

The MS Teams Bot application has delivered measurable improvements for the customer:

- **Enhanced Collaboration:** Improved communication and coordination among diverse teams, ensuring seamless information sharing and effective decision-making in multilingual environments.
- **Operational Efficiency:** Reduced manual effort in managing tasks, saving an administrative time.

## Conclusion

SpringCT's MS Teams Bot application showcases how advanced technology can break down language barriers and enhance communication in professional settings. By addressing complex design and deployment challenges and delivering a reliable, user-friendly solution, the bot has empowered teams to collaborate seamlessly in a multilingual environment. The successful implementation sets a new standard for inclusive and effective communication in virtual meetings and events, paving the way for future innovations.