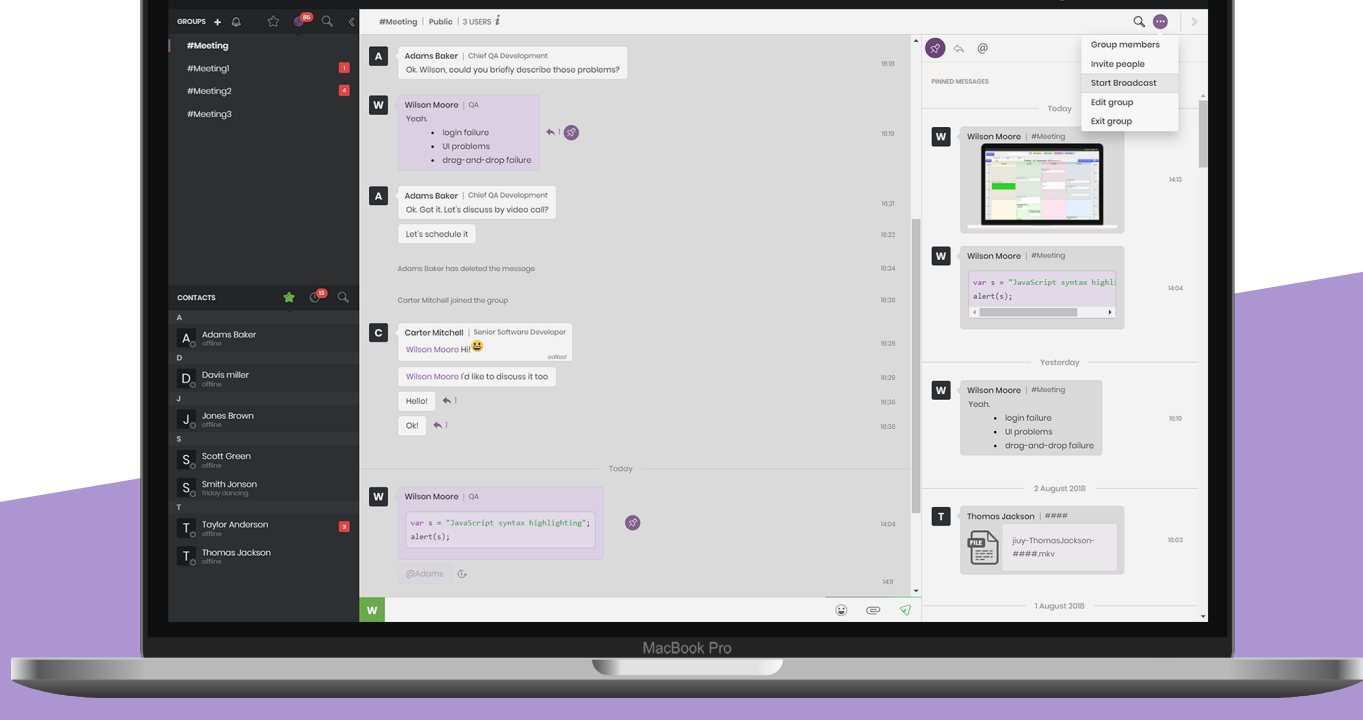


Stand-alone Peer-To-Peer Video Chat Application

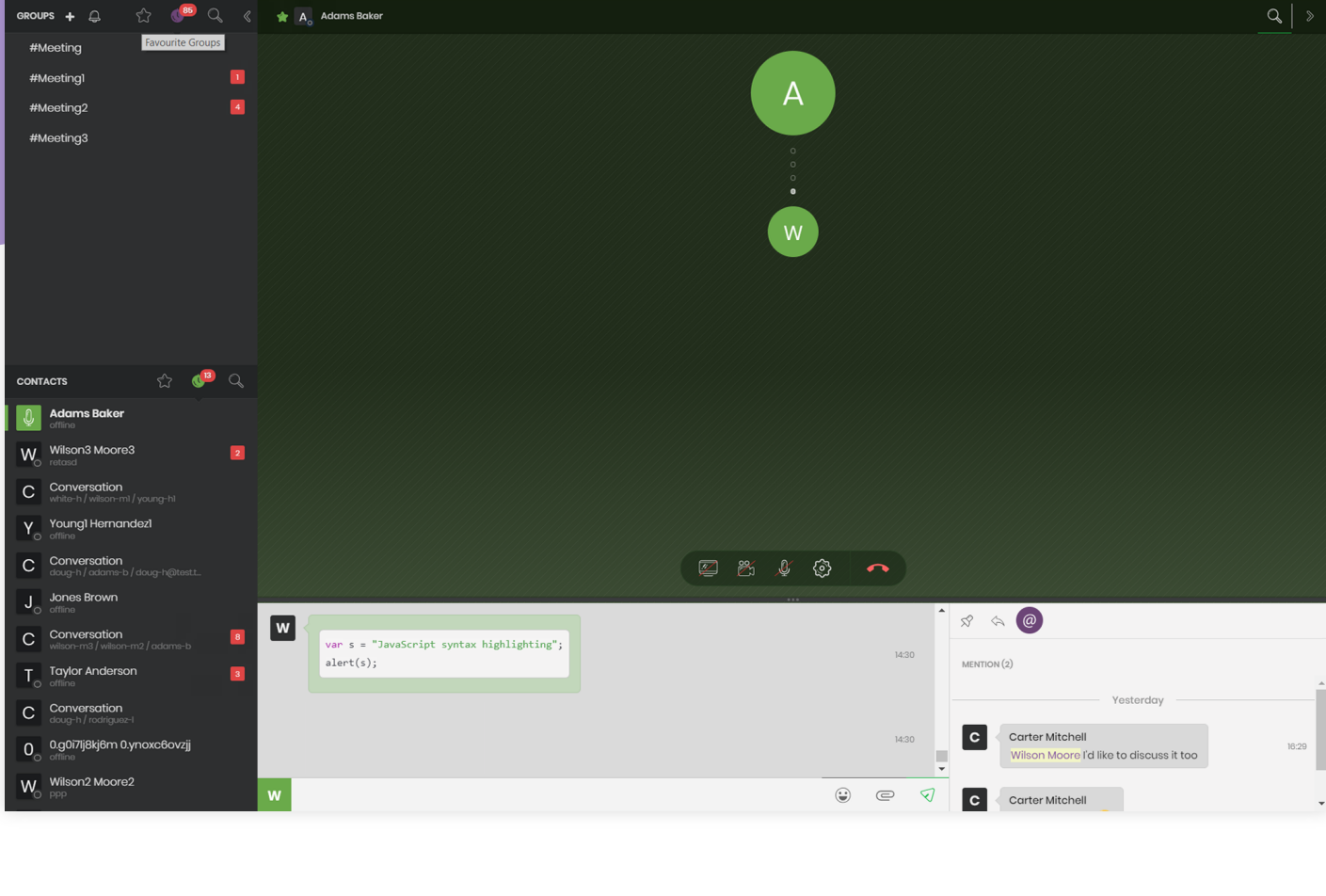
A straightforward stand-alone peer-to-peer video chat application. It provides quick, convenient, and highly secure video/audio and text messaging for peer-to-peer and group communication between employees from the same company. The peer-to-peer application has allowed the client to communicate, and share files more efficiently, saving time overall.



Business Challenge

Today we rely on clear communication for a wide variety of tasks. The peer-to-peer video chat web application gives employees the perfect communication tool and liberates them from the problems they previously experienced with emailing.

The customer's company asked us to develop an easy-to-use peer-to-peer application with secure video/audio, file sharing, and text messaging abilities for internal communication between its employees. The main purpose of the app is to make communication between different departments within the company easier, quicker, and more efficient. The key functionality to include was group and peer-to-peer chat along with video/audio communication without internet access. The stand-alone peer-to-peer video chat application should ensure high security, high working stability, and high-quality audio and video streams for up to 5 peer-to-peer connections at a time. The application should allow users to create chat groups with up to 3000 participants. The video chat should operate on desktop devices (PCs and laptops) only. The customer required a dynamic, easy-to-use and informative peer-to-peer video application to improve internal communications between individual employees and different departments.



Solution

XB Software team was asked to develop an efficient and stable corporate stand-alone peer-to-peer video application which should operate without an internet connection. The development team, comprising of a business analyst, WebRTC and React developers as well as QA engineers, was tasked with creating error-free code for the web application. We used WebRTC technology for maximum security. WebRTC security uses standardized encryption methods which are proven to protect users' private information from unauthorized intruders. It offers excellent protection in addition to the revolutionary streaming voice and video features that define the technology.

The front end of the peer-to-peer video chat application was implemented using React.JS and CSS, which helped to create the application's user-friendly design and clear features. The back end of the app was made using Node.js and MySQL. Other technologies used include Redux, Docker, Redis, and NGINX.

XB Software's developers designed it to offer a fast and stable connection for video or audio, text messaging, file sharing, private and group communication, and custom alerts. Users can begin private chats and group chats. Text-based chats can include up to 3000 users, while video chats can accommodate up to 5 users. Users can start a one-to-one chat with anyone in a group chat session. Only users authenticated (using AD/LDAP authentication) in the web application are allowed to use these features. Users can share their screens during video calls, and they can also broadcast to up to 100 other users.

Applied Technologies

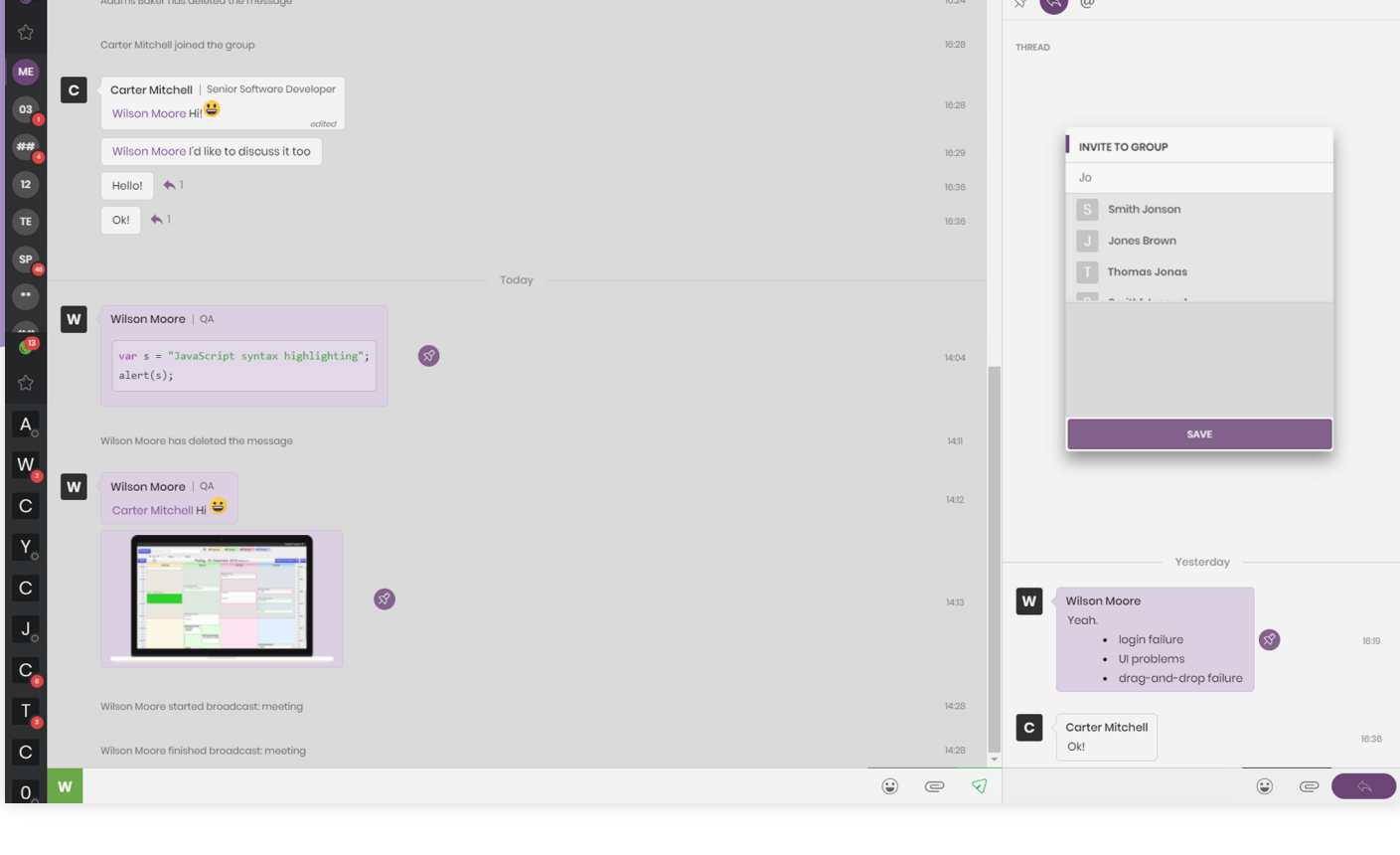


Duration

1,5 years

Estimated Working Hours

6000+ hours



Our Role in the Client's Success

XB Software's WebRTC and React.js developers built an easy-to-use stand-alone peer-to-peer web application which offers audio, video, and text messaging. The chat feature is based on WebRTC technology and only works within the customer's intranet. The app has a simple login form and allows users to:

- create private peer-to-peer text messaging and video/audio communication
- create, edit or delete a group for text or video communication
- add users to the group
- write, share, search, resend, edit or delete their messages
- pin the main message
- mention the user in the message
- share information with a group
- file share by intuitive drag-and-drop
- view the groups' notifications

Also, the peer-to-peer video chat app has an intuitive and adaptive user interface with a collapsible menu. The video chat app has simplified the communication process between employees and made interactions between different departments in the company easier and more productive.

Customer

A UK company that provides different solutions in the advertising, cinematographic, and creative design sphere. They help to build amazing AD, film, and design creations, along with an end to end product solutions.

Thanks for watching!

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