



## Reducing Cost and Friction in Customer Support through real-time Web Communications

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**Abstract:** Having a chat support system that operates in real-time is crucial for offering customer assistance and enhancing their satisfaction. Typically, this is achieved by integrating a chat widget or plugin into the seller's website. Moreover, this type of chat feature not only contributes to customers' success but also instills trust in them to make purchases. In this paper, we are going to develop and implement a live chat provider service that would allow users and businesses to provide live chat features on their websites and applications at a reduced cost. This will also be complemented by other features such as ease of use and improved user experience for their customers enabling businesses to provide real-time customer service at reduced cost and improve conversion rates.

**Keywords:** customer support, chat plugin, web communication, real-time.

### 1. Introduction

Real-time chat support is important in providing customer support and improving customer success [1]. This is usually done through a chat widget or chat plugin provided on the seller's website. This chat also improves customer success and gives them the confidence to buy the product. However, the feature is usually expensive and thereby out of reach for more small and medium businesses as it is expensive. In spite of being expensive, real-time chat should be

provided on the website as it has many benefits. The obvious benefit is that the customers can ask their doubts and get them clarified then and there without having to wait for hours or days.

This increases customer satisfaction as they know that their queries will be answered soon. Secondly, it also gives an opportunity for cross-selling and upselling products to customers. The agent can understand the requirements of the customer and suggest them other products which might be useful for them [4]. Thirdly, it builds trust between the customer and the organization. The customer knows that there is someone to answer their queries even after they have made the purchase. All these factors lead to increased customer retention and improved customer loyalty which is essential for any business in order to grow.

Our project aims to develop an online chat product that businesses and users can integrate easily into their websites or application and give their users little to no development time while still keeping the entire service cost-effective.

### 2. Literature Review

*2.1 Live chat has the highest customer satisfaction level of 73%.*

Customers today expect a high level of service and support, and live chat is one of the best ways to provide it. Live chat has the highest customer satisfaction level of all support channels, at 73%. That's significantly higher than email support (61%) or phone support (44%). Customers appreciate being able to get help in real time, and they also appreciate the convenience of being able to chat from wherever they are [3]. For businesses, live chat is essential for providing great customer service. It's fast and efficient, and customers love it.

*2.2 69% of the customers prefer interacting with a human agent to chatbots.*

In a world that is increasingly digitized, it is no surprise that more and more businesses are turning to chatbots to provide customer support. However, a recent study has found that 69% of customers prefer to interact with a human agent when they need help, rather than a chatbot [5]. The study found that customers feel more confident when they are speaking to a human, and they are more likely to trust the information they are given. In addition, customers feel like they are able to get their needs met in a more efficient manner when they are speaking to a human agent. As a result, businesses should consider the importance of human interaction when they are designing their customer support strategy.

*2.3 44% of customer service leaders across the world said live chat and messaging were critical for them to maintain service levels through the pandemic.*

In a recent survey, 44% of customer service leaders said that live chat and messaging were critical for them to maintain service levels through the pandemic. For businesses, chat and messaging platforms offer a more efficient way to handle customer inquiries, as multiple inquiries can be handled simultaneously. In addition, businesses can often resolve issues more quickly through chat and messaging, as they can provide customers with links and resources that they may not be able to find on their own.

For customers, chat and messaging platforms offer a convenient way to get answers to their questions without having to wait on hold or speak to a representative. In addition, customers can often resolve issues more quickly through chat and messaging, as they can provide businesses with links and resources that they may not be able to find on their own. As a result, it is not surprising that customer service leaders across the world see chat and messaging as a critical part of their pandemic response.

*2.4. Over 41% of customers expect a live chat widget on websites.*

A recent study found that over 41% of customers expect a live chat widget to be present on websites. This is a significant increase from previous years when the percentage was closer to 30% [3]. The study also found that customers are more likely to do business with websites that offer live chat and are less likely to leave if they are able to chat with a customer service representative in real time. These findings suggest that live chat is becoming an increasingly important tool for businesses.

*2.5. Customers who use live chat are 2.8x more likely to convert than those who do not use live chat support.*

Customers who use live chat support are 2.8x more likely to convert than those who do not use live chat support. This is because live chat provides customers with the ability to get instant help from a company representative. This can be invaluable when customers are considering making a purchase,

as they can get their questions answered immediately [3]. Additionally, live chat offers customers a sense of personal connection with a company. They feel that they are speaking to a real person, which can build trust and improve customer satisfaction levels. For these reasons, companies that offer live chat support see lower levels of customer churn and higher conversion rates.

### 3. Aim and Objective

To develop and implement a live chat provider service that would allow users and businesses to provide live chat features on their websites and applications at a reduced cost. This will also be complemented by other features such as ease of use and improved user experience for their customers enabling businesses to provide real-time customer service at reduced cost and improve conversion rates.

### 4. Research Methodology

From the research, it was found that having a live chat feature on websites and applications dramatically increases conversion rates and brings a plethora of other benefits for businesses. Despite the advantages that live chat offers businesses, such as increased sales and customer satisfaction, the high cost and lack of accessibility make it impractical for small to medium businesses. Additionally, users generally prefer talking with live human agents as opposed to chatbots, which are often less effective at resolving issues. While live chat does have some drawbacks, its benefits outweigh the negatives for businesses that are able to afford and implement it. The limiting factor for the adoption of such services is the cost which is usually billed on a 'per agent' basis on most services. This can spiral and add up very quickly if you have even a decent size of support team [2].

Build a platform that allows users to generate a script that they can embed in their website or application. This will provide a live chat widget that their customers can then use to interact with them in real-time.

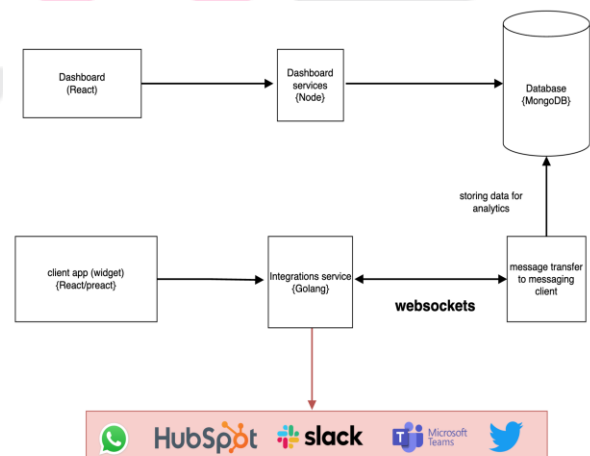


Fig.1: UserStak Architecture

In order to provide a robust real-time communications service whilst keeping costs low, we decided to go with an approach that offloads most of the server load onto an external service. This external service provides a wide range of features that allow us to keep our costs down, including support for a variety of protocols, scalability, and security [2,5]. By using this service, we are able to provide our users with a high-quality service without incurring the high costs that would otherwise be associated with such a service. For example, data would be stored in their servers keeping storage costs low on our end. In addition, this external service also provides us with a number of other benefits, such as increased reliability and uptime, which are essential for any real-time communications service.

## 5. Results

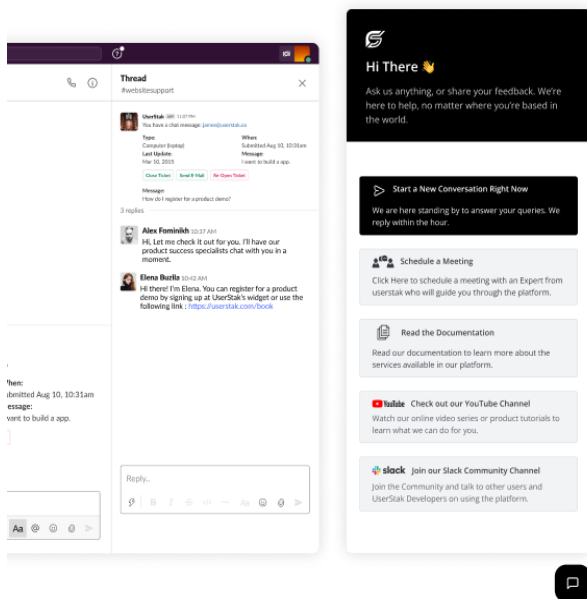


Fig.2: Final Chat Widget

Using the research and after completing the development over a period of 2 months, we have developed a software solution that helps users and businesses provide a live chat feature on their websites and applications with ease. This solution can be easily integrated into their product by just simply embedding a line of code into their application.

We decided to start things off by developing our first integration with Slack as it is a software that most high-performing startups and businesses use. It is also used by most Fortune 500 companies and thus we felt that it would be a good first candidate to develop the service.

## 6. Conclusion

The key aims of this project were to develop a software solution that provided a chat feature that was cost-effective. We did this by offloading storage and computing to an external service whilst we acted as the bridge. This allowed us to create a lean solution that was easy to implement and maintain. In addition, we were able to take advantage of existing infrastructure and services, which helped keep costs down. The end result was a chat service that was both affordable and reliable.

In conclusion, though real-time chat support is expensive, the benefits provided by it make it worth the investment for any business which wants to provide good customer service and improve its bottom line. Hence, we developed a solution that can now use an external service provider's server for computing and storage whilst our service acts as a front-end bridge for providing this service. The end result is a customer support software solution that is cost-effective and provides users and businesses with the advantages of live-chat capabilities.

## References

- [1] Cszimadia, A. (2020, November 27). 20 best chat widgets for your website. LiveAgent. Retrieved October 9, 2022, from <https://www.liveagent.com/blog/chat-widget-for-website/>
- [2] Leggett, K. (2017, July 19). Forrester's Top 15 Trends for Customer Service In 2013. Forrester. Retrieved October 9, 2022, from <https://go.forrester.com/blogs/13-01-14-forrester-top-15-trends-for-customer-service-in-2013/>
- [3] The New CX Mandate - Discover insights & predictions from 1,500 customer service leaders. (n.d.). Retrieved October 9, 2022, from <https://www.freshworks.com/the-new-cx-mandate/>
- [4] Reed, N. (2021, March 17). Converting your online window shoppers. WhosOn. Retrieved October 9, 2022, from <https://www.whoson.com/ecommerce/converting-online-window-shoppers/>
- [5] Financial Express <https://www.financialexpress.com/business/brandwagon-69-of-consumers-prefer-using-chat-interfaces-report-2519381>