SENSE Multi-User System Test Report

I. Test Overview

This test aims to evaluate the functionality and usability of the SENSE multi-user system, with a focus on users' experiences in sign creation, status update, and interaction with other users' signs.

II. Test Participants

The test participants include different types of users such as office workers and Internet of Things (IoT) enthusiasts to ensure the representativeness of the test results.

III. Test Environment

The test was conducted in a simulated actual use environment, including different devices and network conditions.

IV. Test Results

(A) Sign Creation

1. Process Smoothness

   - Most users were able to complete the sign creation process smoothly. When using the tools and interfaces provided by the system, the operations were relatively intuitive and met users' expectations.
   - However, some users reported that the interface response speed was slow when selecting certain complex styles or templates and needed further optimization.

2. Functional Completeness

   - Users could use various elements provided by the system to customize signs, including text, color, icons, etc., meeting the basic personalization needs.
   - But for some advanced users, they hoped to be able to import custom pictures or graphics as sign elements, and the system currently does not support this function.

(B) Status Update

1. Real-Time Performance
    - In most cases, users' status updates could be reflected on the sign in a timely manner. Whether it was a manual update or an automatic update based on the system-set rules, it showed good real-time performance.
    - However, when the network environment was unstable, there might be a delay in the status update, and the maximum delay time could reach [X] minutes, which might affect the user experience.
2. Accuracy
    - The system could accurately update the sign status according to the rules set by the user, and there was no incorrect status display.

(C) Interaction with Other Users' Signs

1. Viewing Function
    - Users could easily view other users' signs, and the interface layout was reasonable and the information display was clear.
    - However, when the number of users was large, it might be difficult to find a specific user's sign, and more convenient search or filtering functions needed to be provided.
2. Interaction Function
    - Currently, the system only supports viewing other users' signs and lacks further interaction functions, such as commenting on or liking other users' signs. Users reported that they hoped to add these social interaction elements to increase the fun and practicality of the system.

V. Problem Summary and Suggestions

(A) Problem Summary

1. During the sign creation process, the interface response was slow when selecting complex styles, and custom picture import was not supported.
2. The status update would be delayed when the network was unstable.
3. It was difficult to find a specific sign when the number of users was large.

4. There was a lack of interaction functions with other users' signs.

(B) Suggestions

1. Optimize the performance of the sign creation interface, increase the response speed, and consider adding the custom picture import function.
2. Strengthen the optimization of network stability to ensure the timeliness of status updates under various network conditions.
3. Add search or filtering functions to facilitate users to quickly find the target sign among a large number of signs.
4. Develop interaction functions with other users' signs, such as commenting and liking, to enhance users' sense of participation and the sociality of the system.

VI. Conclusion

Through this test, we have a more comprehensive understanding of the functionality and usability of the SENSE multi-user system. Although the system has shown certain advantages in sign creation, status update, and user sign interaction, there are also some problems that need to be improved. The suggestions put forward for these problems will help to further improve the system, enhance the user experience, and make it better meet the needs of potential users.