Chat applications are becoming widespread in business. For existing applications, there is the risk of data leakage due to unauthorized access into the server since the server manages and stores chat data. In the business chat application developed by NTT Laboratories, it is possible to efficiently and securely send/receive/search encrypted group chat messages and dynamically change chat members.

**Features**

- Multi-cast key distribution technology efficiently realizes end-to-end encryption among many devices, and protects chat data from eavesdropping on communication paths and servers.
- Proxy re-encryption technology allows only new chat members to view chat data by re-encrypting the data without decryption, even if a chat member changes due to personnel change, etc.
- Searchable encryption technology enables full-text search of chat data while keeping the search contents concealed from the server.

**Application Scenarios**

- Sharing confidential data such as customer information at a business trip destination
- Close communication with partner companies
- Storing and managing design data, technical information, etc.
- In addition to chat, this technology can also be applied to file sharing and webmail.

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