

Dinagar Raghunathan, B.E. (CS)
H1, Land Marvel Garden, Rajaji Nagar,
Thiruvanmiyur, Chennai
India – 600 041

Trinity – Message Transfer Agent

Abstract

Trinity is a unified implementation of three network applications, a **Mail server**, an **Instant messaging server**, and a **FTP server**. The Implementation uses a single sign on system and the user can access all the services with a single authentication event. Trinity uses asynchronous communication methods, with **SMTP** reply codes as its base. It contains multithreaded multi ports to listen and reply clients.

The Mail server stores messages sent to a user in the allocated space. When the users requests for a message, the server starts the communication after authentication and port initialization events. The software provides outstanding user friendly environment for user management, login access, compose & view mail support, file transfer system and chat room.

Trinity comes with an in-built client program. The client is in-sync with the implementation of the Trinity server and gives complete access to the facilities provided by the software. It provides the freedom for the users to design their own client programming by following the request-reply code of the service.

For the ease of users, the reply codes have been designed in such a way for any type of request, there will be either of two reply codes, “250” (accepted) or “220” (rejected). The complete documentation over the request codes have been given with the software and the software also has the prototypes for chat client and file transfer client. The server program can be extended to serve as FTP server. The server can also support session creation between clients.

This project was aimed to facilitate the intra departmental communication and the chat within Department of Computer Science. Trinity is developed by using Java as front end & MS Access Database as back end.