

**SEA 2008**  
**Ninth IASTED International Conference on Software Engineering and Applications**  
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*Reviewers' comments*  
*Paper: 632-077*  
*The Referent Tracking System as a Peer 2 Peer Application*

Review #1: Accepted

Originality 3      Contribution 3      References 3      Presentation 2      Language 2

*Comments:* The paper presents the client/server P2P service oriented architecture of a medical RTS application enabling secure data sharing over distributed Peers running at geographically different sites and offering to health care institutes more detailed data than the HL7's Clinical Document Architecture.

*Suggestions:* Distributing data geographically also has significant potential issues that are not and should be investigated too: transmission costs, current servers and networks performance and (over)loading, available free disk space, possible administrative constraints (such as restrictions for remote accesses during high-peak local loading periods) etc.

Review #2: Accepted

Originality 3      Contribution 3      References 3      Presentation 3      Language 3

*Comments:* The paper describes an architecture for a referent tracking system application using P2P architecture to allow data sharing over distributed peers.

*Suggestions:* none

Review #3: Accepted

Originality 3      Contribution 3      References 2      Presentation 2      Language 2

*Comments:* This paper presents the implementation of a Peer 2 Peer system for the application of accessing reference tracking data. The architecture and flow of operation are clearly shown with figures, along with a detailed analysis of the benefits of using Peer 2 Peer for such application.

*Suggestions:* I hope the author(s) also address some performance improvement issues, such as how to balance the amount of data stored in each peer (in this case, health care institutes), and how to reduce the number of unnecessary queries and avoid network congestion.

### **Further Information**

This paper was earlier submitted to AMIA 2008, but rejected on the basis of the following reviews:

Reviewer: 1

A network architecture for restoring and accessing RT data is proposed involving P2P, service oriented, and client/server techniques. The system has been implemented. It would be more convincing to run the system in several geographically distributed hospitals while databases populated with real RT data. Additionally, in real hospital settings, other various clinical systems might also be running which may be based on different medical terminologies/ontologies, and these systems shall interact and cooperate with the RT system, so that queries covering them can be answered. It's unclear how this can be supported by the architecture proposed.

Reviewer: 2

Architecture of the system is well explained. Need to include related work and evaluation of the system.

Reviewer: 3

Very well written, described and discussed. I would only perhaps add a short discussion on RT's current usability and level of acceptance in healthcare industry since they are relatively new. Very well organized too.