Triple Space Communication
http://www.tripcom.org

"TripCom will change the Internet usage through computers just as the Web revolutionized the Internet usage through humans"

WHY

Information in the form of semantic data is becoming more and more ubiquitous on the Internet. To access and use it end-user applications need a coordination middleware that provides a loosely-coupled virtualization of the underlying technical complexity and the distributedness of the information sources.

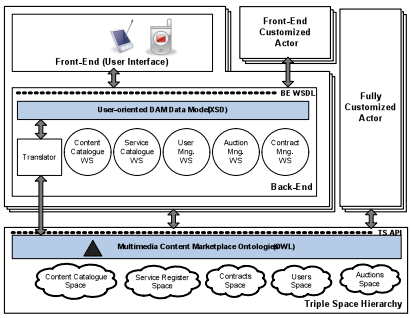
WHAT

TripCom develops a "persistent publish and read" infrastructure at Internet scale for Semantic Web applications and services, and evaluates this approach through a number of use cases within the Enterprise Application Integration and healthcare areas. The goal is to move the Web from being mainly for humans only to a network of interlinked applications based on machine-processable semantics of data.

HOW

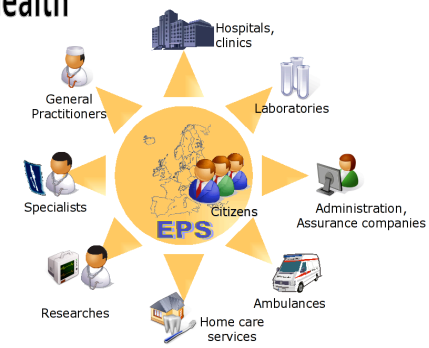
TripCom inherits the shared space principle and the coordination models from Linda tuplespaces and augments these with well-founded (Semantic) Web technology in order to achieve the required level of robustness, scalability, and Internet compatibility. TripCom's semantic space middleware, called Triple Space, is the first large scale tuplespace installation that enables the integration and coordination of distributed Semantic Web application on the one hand, and of heterogeneous and dispersed databases on the other. The infrastructure is provided through so-called Triple Space kernels that in P2P fashion provide the space functionality: persistent storage, query processing, distribution, and security and trust.

USE CASE EAI



Enterprise application systems are heterogeneous, autonomous, distributed and immutable, meaning that they have own data and process models, are designed to run independently, operate on local data and have limited adaptability to existing IT infrastructure. DAM marketplace - an emerging business for telecommunication companies - is a good EAI example. TripCom's communication and coordination paradigm offers new business opportunities where scalability is essential.

USE CASE eHealth



TripCom contributes to current European challenges in eHealth by providing a middleware for patient summary management: medical records are consolidated from heterogeneous data that is published by healthcare actors across Europe. The scale of the problem - summaries for 500 million Europeans, and some hundred thousand healthcare users - is the main reason for the adoption of a novel technology like TripCom.

Project coordinator
dieter.fensel@sti2.at

Scientific director
elena.simperl@sti2.at

Project administrator
alice.carpentier@sti2.at