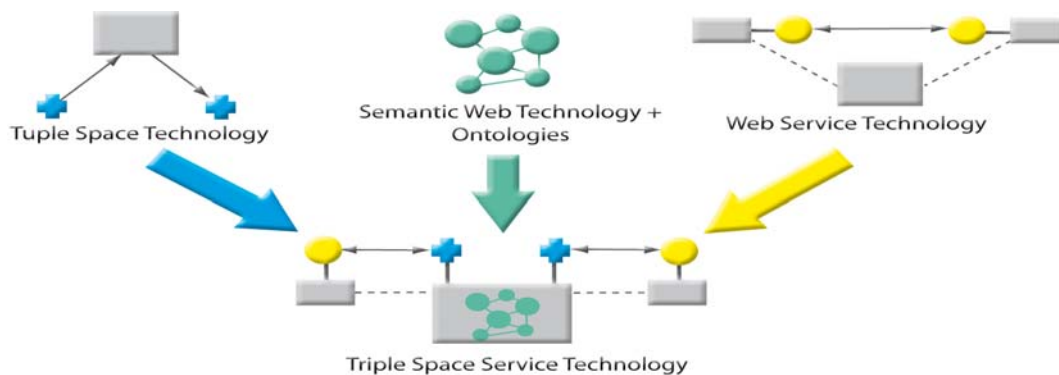


## Annual Public Report

*"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 and heterogeneity of the information sources.

### < What >

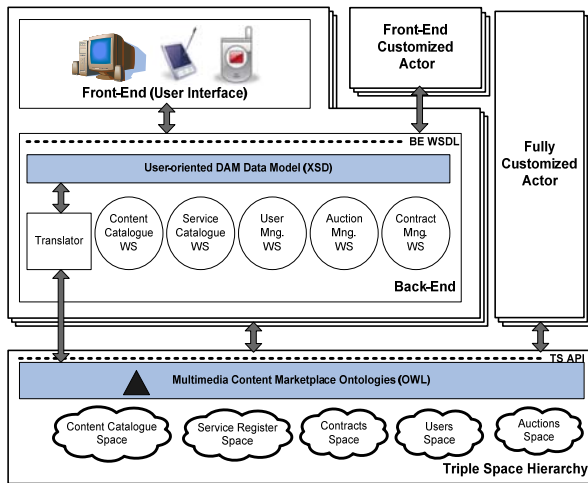
TripCom develops a "persistent publish and read" infrastructure at Internet scale for Semantic Web applications and services, and evaluates this approach through a number of use cases within the Enterprise Application Integration and healthcare areas. The goal is to move the Web from being mainly for 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 Web 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 applications on the one hand, and of heterogeneous and dispersed databases on the other. This is realized through so-called Triple Space kernels that provide the space functionality in P2P fashion: persistent storage, query processing, distribution, and security and trust.

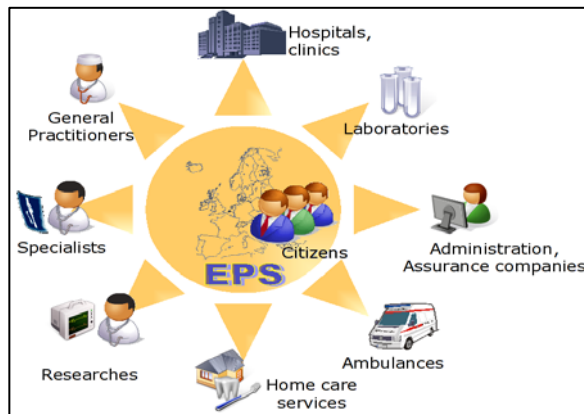
< Use Cases >

**Enterprise Application Integration**



The enterprise application landscape is highly heterogeneous, dynamic and distributed. Applications have specific data and process models, are designed to run independently, and are difficult to adapt to changes in the IT infrastructure. The Digital Assets Management marketplace - an emerging business for telecommunication companies - is a good Enterprise Application Integration example. TripCom's communication and coordination technology offers new business opportunities, especially in setting in which scalability and flexibility are essential.

**eHealth**



TripCom addresses current European challenges in eHealth by providing a robust and scalable middleware for patient summary management: medical records are consolidated from heterogeneous data that is published by healthcare parties 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 such as TripCom.

For more information, notably the Web-enabled showcases of the project use cases, please visit <http://www.tripcom.org/showcase.php>

### < Promotion and Awareness >

To disseminate and promote the results of TripCom, the project has organized a tutorial at the Future Internet Symposium (September 2008, Vienna, Austria). The need for a novel Web service coordination middleware such as Triple Space, compliant with fundamental architectural principles of the Web, is identified as essential on the Future Internet. The tutorial introduced the Triple Space Computing paradigm and showcased its use for the development of Future Internet applications. The aim of the tutorial was to provide insights into the theoretical and practical aspects of this new paradigm. The tutorial was attended by interested researchers, developers and consultants. A recording of the tutorial is available online at <http://tripcom.org/fis2008/index.html>. We plan to continue providing such tutorials at future appropriate events.

Besides the tutorial, TripCom promoted its research vision and project results at two international workshops during 2008: the Workshop on Middleware for the Semantic Web, and 1<sup>st</sup> International Workshop of Semantic Extensions to Middleware. The first one was held in conjunction with the 2<sup>nd</sup> International Conference on Semantic Computing in Santa Clara, California. The workshop was conceived as a highly valuable contribution to the conference and triggered further collaborations between the organizers in California and the TripCom representatives. The second workshop was organized in collaboration with the OnTheMove Federated Conferences and Workshops OTM that took place in November in the Mexican city of Monterrey. As a result of the workshop, the organizers have to chance to edit a special issue of the Journal of Software from Academy Publishers that shall appear in summer 2009. To foster further discussion, and as a platform for dissemination and collaboration on the subject of the workshop, there was a wiki-page installed that contains further information about the special issue too: [semels.sti2.at](http://semels.sti2.at).

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