

CyberRail, Concept and Future

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CyberRail is a business model in dealing railway-service-related information that has been developed to facilitate passenger travel while improving the efficiency and business opportunities for railway operators. The basic concept of CyberRail is not to offer mass public transport, but to offer tailor-made transport choices centered on railways.

The virtual assistant and ubiquitous travelling companion functions of the CyberRail system, which is one of the key features, will require a central and distributed IT system with duplex communications functions for providing and displaying information, which is available everywhere and anytime, when contacted by passengers. This function is realized through an abstract concept called a "Tag." The Tag should be invisible, omnipresent, and unconscious from the view point of ubiquitous computation.

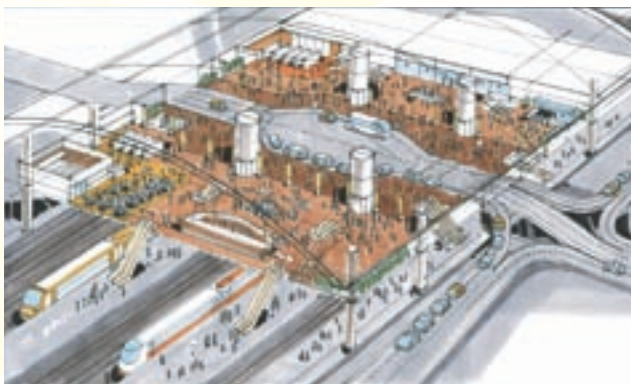


Figure 1. Image of Future Intermodal Transport Station.

Let us explain what happens in a CyberRail world. A passenger asks the system how to travel from a place to another. CyberRail conducts him/her on the way to reach the destination and does necessary arrangements including seat reservations. Once this set-up has been completed, CyberRail could remind the traveler at the proper timing to do the next action in a travel chain and inform him/her of the current status of traffic, etc. As the system recognizes the passenger profile, destination, and current location, the concept of tickets would be changed. In other words, a piece of guidance or advice is the start of the travel contract. The system could provide appropriate and customized information, particularly for "handicapped and elderly travelers." Considering the expeditious development of ubiquitous computing technology, functions of CyberRail will become more and more realistic. These are a sort of the proof how our visions and assessment of IT development are correct and appropriate and how precisely we predict the future transport trend.

We have established a special interest group (SIG) on CyberRail in Japan. In this context, an experiment will begin in 2003 spring. One railway company in the Tokyo Metropolitan Area has commenced an information providing service to passengers, called Goopas, which sends e-mails to customer's mobile phones, at the timing when they pass automatic ticket collection gates. E-mails carry related information dependent upon the interests of the passenger, such as shops, restaurants, events of the town, daily news, and short topics of the day. We are planning to build a part of the CyberRail functions making use of this system. Please visit our Web-page on the CyberRail: <http://cyberrail.rtri.or.jp/english/>

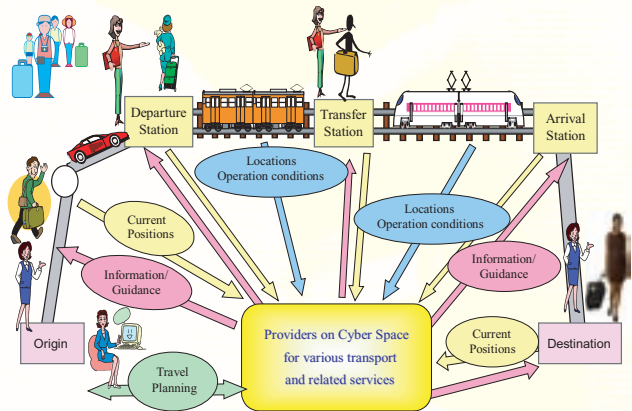


Figure 2. Travel by CyberRail.



Figure 3. Changing from Mass Transport to Tailor-Made Transport.

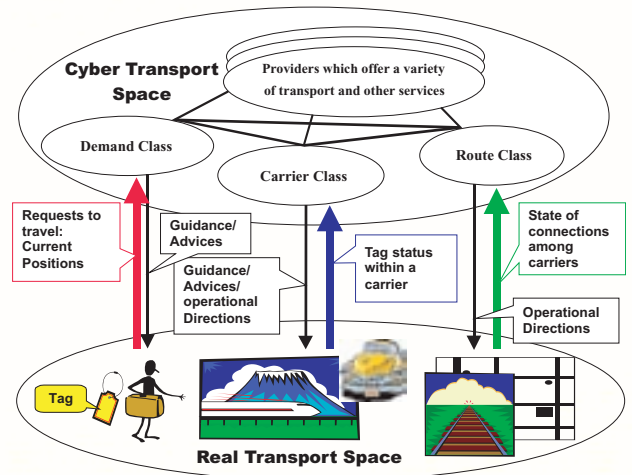


Figure 4. CyberRail Conceptual Model.