

Future Phone: t-Room

NTT Communication Science Laboratories

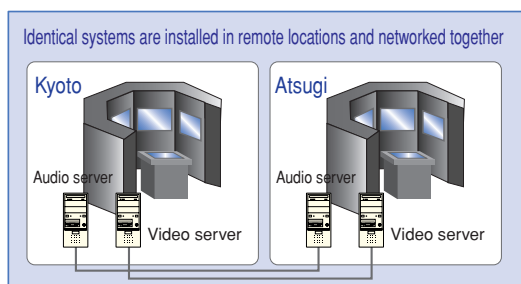
Even with the availability of video conferencing systems, there still seem to be occasions where there is no substitute for direct face-to-face discussions. Conventional video conferencing systems have aimed to create a strong feeling of presence by employing high-quality audio and video and virtual reality technology. However, conventional systems do not fully recreate the interactions that naturally take place between people who are gathered in the same room.

For example, if person A sees person B from a diagonal perspective, then person B should see person A from a diagonal perspective. The apparent distance of person A from person B should also match the apparent distance of person B from person A. If person A moves, then the apparent direction and distance of person A from person B should change, and vice versa. Their positional relationship should also be immediately apparent to a third person C who is viewing them from the side. These things that people take for granted when they are all in the same room are not conveyed by conventional video conferencing systems. At NTT Laboratories, we have developed a video conferencing system called "t-Room" that creates the feeling of being in the same room as users who are separated spatially and even temporally.

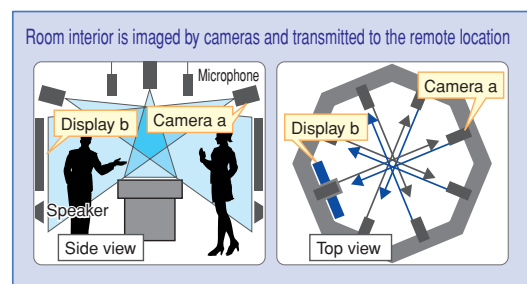
We demonstrated this system at the NTT Communication Science Laboratories Open House 2005 back in June, and many visitors were highly impressed by the feeling of being in the same room. In December we launched the official "t-Room" website at (www.mirainodenwa.com). This site is packed with all sorts of information, including a description of the technology behind "t-Room" and an 11-minute demonstration video. To convey a feeling of being in the same room when people are present at different times, "t-Room" allows an earlier conference to be recorded and played back during a later conference. This later conference can itself be recorded and played back during another conference in the future. This playback feature plays a role similar to that of quoted text in emails. You are invited to take a look at the demonstration video.

At NTT Laboratories, we are considering "t-Room" as a future form of telephone service. Based on this technology, it will be possible to provide a wide variety of communication services, establish connections even to mobile phones and PCs, and allow people to communicate with each other. There are endless possibilities for this technology.

The "t-Room" configuration and layout of the demonstration system



The hardware configuration of "t-Room"



Arrangement of displays, cameras, speakers and microphones



Participating in meetings across time differences



Demonstrating the system