

The Strategic Importance of Speech Technology for NGNs

An Executive Summary

Version 1, May 25, 2007

Overview of The White Paper Entitled:

Strategic Importance of Speech Technology for NGNs.

Conversational Computing Corporation (Conversay), Redmond, Washington, USA

Summarized here are the reasons why we advocate the adoption of Speech Technology as a *strategic* component of Next Generation Networks (NGNs), and urge development and implementation of regulations and public policy for world-wide deployment of the technology in the devices accessing the NGNs.

Speech technology, encompassing Automated Speech Recognition and Text-to-Speech, enables humans to interact with electronic devices through human language. It is the most human and benign of all technologies. Formulation of regulations and policies aimed at including speech technology as an essential ingredient of NGNs will ensure that all nations of the world, developing or developed, reap the handsome benefits brought by ICTs, the Internet, and the increasing computer power of cellular phones. Given the current embryonic stage of NGNs, it is critical that speech technology is included in the regulatory thought and action, for several strategic reasons:

- **It transcends literacy barriers.** Speech has demonstrated the ability to enable illiterate people – challenged by reading, writing, keyboarding, and the use of computers - to use modern information networks to access information, communicate to others, or perform other tasks as effectively as literate people.
- **It is a vital educational tool.** The direct use of speech in computer-aided instruction has great potential to reduce illiteracy simply by combining a simple workbook with a speech driven tutorial.
- **It has universal appeal, applicability, and accessibility.** With demonstrated success across diverse language groups, cultures and individual physical differences, speech embraces all nations of the world in a global information society. When made integral to mobile phones, the technology brings concomitant benefits to all nations in which mobile phones are used.
- **It helps bridge the digital divide.** Speech can facilitate computing and the use of the Internet, and can play a central role in bridging the digital divide. NGNs are characterized by the use of advanced technologies, and can widen the digital divide if they are only accessible in the developed nations. As NGNs take hold and spread, systematic inclusion of speech technology in NGNs will ensure that the digital divide is kept in check and reduced.
- **It can transcend language barriers** with such attractive applications as speech-to-speech translation.
- **It aids and stimulates global economic development:** Speech can contribute to universal access to better health, education, e-government and a variety of other services. Moreover, developing, deploying and maintaining speech technology and applications creates job opportunities and stimulates economic growth in local industries around the world as well as in international commerce.

The convergence of computing with the cell phone and the Internet is spurring enormous growth through information sharing in the more educated and economically enriched populations. But the digital divide grows if the benefits are denied to those who need it most. Regardless of economic or education level, speech is a neutralizing technology that overcomes barriers and can project fundamental medical, educational, and business capabilities that can enrich lives across diffuse languages.

Speech is a strategic solution that transcends the most significant divisions ICT's face.