

New Frontiers for Ubiquitous IT Services

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History has seen the development of many important types of technology including ships, trains, cars, electricity, and telecommunications. Ubiquitous IT services should eventually join this group but at present they seem to be just a dream for the future. Webster's defines "ubiquitous" to mean, "being or existing everywhere at the same time", and so ubiquitous IT services seems to indicate a kind of dream world where we possess abilities that are beyond time and space.

If we are to realize such super power abilities, ubiquitous IT services will require a number of very specific tools, for example, photonic, electrical, and micro-mechatronic tools, various sensing tools, and a new communication tool.

On the other hand, we believe that a substantial change is taking place in IT services, namely from a small "i" and a large "T" to a large "I" and a small "t." This represents an expansion of human abilities and a customer-centered structure. We are confident that ubiquitous IT services correspond precisely to this change in IT services, because ubiquitous IT services are not only network services but also "I-centered" or "human-centered" services designed to promote individual empowerment. Ubiquitous IT services are just beginning to emerge. The time is coming when we will launch a new information technology age providing such services. We will then be able to utilize IT services everywhere at the same time whenever we so desire.

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