ARCHITECTURE FOR ACCESSING WEB SERVICES ON MOBILE DEVICES OVER BLUETOOTH CHANNEL

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Abstract

In this paper we present a concept of accessing web service on mobile devices using Bluetooth connection as a transport layer. The Bluetooth wireless technology creates many useful mobile usage models. This technology creates many useful mobile usage models. This is because connections can occur while mobile devices are being carried in pockets and briefcases – thereby eliminating line-of-sight restrictions. One such potential usage is to access Web Services using Bluetooth. The concept is to provide network support for midlet applications accessing Web Services.

The architecture presented in this paper uses the JAX-RPC solutions; the basic Client-Server architecture used commonly to exchange SOAP messages using HTTP as transport protocol. Based on available information, HTTP protocol is currently not supported over a Bluetooth connection. In this architecture, idea is to use the Bluetooth RFCOMM protocol which implements emulation of Serial Connection and setting up of Point-To-Point connections. We have used Blue Cove as the specification of JSR-82 (JAVA APIs for Bluetooth) and kSOAP library for serialization and de-serialization.