

# Lightweight Web-based Communication Interface Design For Web of Objects

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**Abstract**—With recent advance of processors and communication technologies, the accessibility toward World-wide-web(WWW) gets better. Recently, there are many tries to integrate devices and things to the Internet. The purpose of Web of Objects is to enhance users life and experiences by providing rich web service with sensors and actuators. The difference from legacy device-connected service is that it follows the webs virtue loose coupling of service components. The loose coupling is important for the dynamic changes of service such that new device component is added on the service or legacy device gets apart from the service. For loose coupling of these components based on the web technologies, it requires lightweight service logic and bi-direct communication interfaces for limited devices like sensors. Each component works not only as server to deal with requests on it, but also as clients to send requests to other components. To support various devices with various capacity and protocols, the interfaces should be configured based on lightweight pure web technologies. In this paper, the lightweight web-based communication interface will be introduced. We designed, configured and implemented this interface for limited device. It is based on the RESTful APIs to react the dynamic changes of service configuration.

**Keyword**— lightweight communication, web of objects, sensors on web, web intents



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