A System And Method For Building Component Applications Using Metadata Defined Mapping Between Message And Data Domains

ABSTRACT

It is desirable to drive down the complexity involved in developing the wireless application by reducing the need to do any explicit coding, as well as reducing device resources utilized by the application when provisioned. Having an intelligent wireless device runtime environment (Device Runtime) that provides a set of basic services to manage the wireless application as a series if application components, and their interactions, can simplify the development effort and reduce resource allocation. The wireless application is described as a set of components. The data domain for this category of applications is defined using atomic data components. The communication between the device and a server is defined using atomic message components. Both message and data components are described in metadata using a structured definition language such as XML. The relationships between the message and data components are embedded in the XML definitions in the form of message/data mappings. Typically, outgoing messages are derived from some underlying data component and incoming messages affect the current state (or data representation) of the application. It is therefore apparent that the metadata defined mapping relationship is preferable between the expression of data and message components.

Figure 1