Abstract

Enterprise Service Bus (ESB) is responsible for publishing and discovery of services in such environments. Context-aware systems offer entirely new opportunities for application developers and for end users by gathering context data and adapting systems’ behavior accordingly. In this paper, we propose a Context Aware ESB (CA-ESB) that will publish and
discover services based on location context. The main modules of the framework consist of
Context Provider (senses location context), Context Aware Logic Module (decides which
regional service to be selected based on location context) and Service Choreographer
(choreographs selected services). We propose a graphical model named Context Aware Graph
(CA-Graph) that will help us to dynamically choreograph the services. These modules along
with other modules of SOA reference architecture will help the ESB to sense the location of
users, to select the required services and dynamically choreograph those services. We define a
set of metrics based on CA-graph and analyse of performance CA-ESB. An algorithm is
proposed that will dynamically choreograph the selected services based on location context.
The results of the case study of an Insurance System are used to illustrate our approach.

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CA-ESB: Context Aware Enterprise Service Bus

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Computer Science
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Cloud Computing
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