A Model-Driven Architecture for Electronic Service Management Systems

Giacomo Piccinelli¹, Wolfgang Emmerich¹, Scott Lane Williams², and Mary Stearns²

¹Department of Computer Science, University College London, Gower Street, London, WC1E 6BT, UK {G.Piccinelli, W.Emmerich}@cs.ucl.ac.uk ²HP Software and Solutions Operation, Pruneridge Avenue, Cupertino, CA 95014, USA {scott_l_williams, mary_stearns}@hp.com

Abstract. Mainly on the wake of the Web Service initiative, electronic services are emerging as a reference model for business information technology systems. Individual applications retain core functions and technology base, but integration becomes crucial. A business service derives from the coordination of different business capabilities. The related electronic service derives from the integration of the different applications sustaining such capabilities. The effective realisation of an electronic service requires explicit modelling and active management of the relations between business capabilities and technical infrastructure. In this paper, we propose the notion of Electronic Service Management System (ESMS) as a framework for modelling and implementing electronic services. The notion of ESMS is substantiated by a workflow-oriented architecture, which we mainly derive from the experience of HP Service Composer and the DySCo (Dynamic Service Composer) research prototype. The architecture is defined in accordance with the OMGs Model-driven Architecture (MDA) principles.