Abstract

Tasklets – a Foundation for Best Effort Computation - or -

Making Computing Really Elastic

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The computing landscape has changed drastically in the past years. There are a number of trends that influenced new computing paradigms such as Pervasive Computing, Grid Computing, Cloud Computing. In my talk I will highlight some of the fundamental differences in computing and will motivate the need for a novel abstraction that allows hiding the details of underlying platforms and thus decouples computing platforms from applications

Tasklets are a joint project with MIT that allows to model computation as a closure that can be executed at various platforms. I will sketch how Tasklets can be used as a basic abstraction for computation and which further abstractions are needed to support applications.

Bio

Christian Becker is a full professor for Information Systems at the University of Mannheim since 2006. Prior to this he was a visiting professor for distributed systems at the University of Duisburg-Essen in Spring Term 2006. He studied Computer Science at the Universities of Karlsruhe and Kaiserslautern where he received the Diploma in 1996. From 1997 till 2001 he was a researcher at the distributed systems and operating systems group at the University of Frankfurt where he received his PhD in 2001 with a thesis about "Quality of Service Management in Distributed Object Systems". In 2001 he joined the distributed systems group at the University of Stuttgart as Post Doc. His research focussed on system support for Pervasive Computing and Peer to Peer Computing. He is specifically interested in architectures for adaptive systems. In 2004 he received the venia legendi (Habilitation) for Computer Science (Informatik). Christian's research interests are Distributed Systems, Self-Organizing Systems and Context-Aware Computing.