Surviving the Glut: The Management of Event Streams in Cyberphysical Systems

Alejandro P. Buchmann Technische Universität Darmstadt Databases and Distributed Systems Group Hochschulstraße 10 64289 Darmstadt

buchmann@dvs.tu-darmstadt.de

ABSTRACT

The widespread deployment of sensors has enabled the development and deployment of many new monitoring and reactive applications. However, the understanding of events, their composition and level of abstraction, the style of processing and the quality of service requirements vary drastically across application domains. The sheer volume of events and the fact that event producers and consumers are decoupled creates new challenges in the development of distributed event based systems. In this talk we survey a broad spectrum of applications and analyze their requirements, the interpretation and processing of events, the required quality of service, and the life cycle of event based applications. Based on this analysis we identify interesting areas of research.