FCS/NRC Joint Seminar Series

Mobility, Context Awareness and Applications in Next Generation Networks.

By
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Dr. Bernd Kurz is a professor in the Faculty of Computer Science at UNB Fredericton.. His current research centers about three areas, data communications and networking, image processing for computer vision, and multi-processor systems for real-time computing. Dr. Kurz's teaching is conducted mainly in three areas, data communications and networking, image processing/computer vision, and real-time processing oriented microcomputer systems

Wednesday November 24th
Training Room "A", NRC Building
3:30pm

Abstract

We are in the midst of a fast-paced evolution of voice and data networking for the benefits of global mobility of users and devices.

Next Generation networks promise global integration of network tiers, from personal area networks to wide area networks, both wired and wireless. They promise users to be always best connected to the most suitable network available, requiring enablers of terminal mobility, such as multi-mode end user devices. Services in Next Generation networks converge at the IP layer. The hierarchical IP subnet structure makes this a challenge, and enablers of session mobility, such as Mobile IP, need to be deployed. Next Generation networks promise personal mobility by allowing connectivity and reachability across the globe with a single lifetime identity, such as enabled by SIP. With the multitude of available end user devices of different form-factors and capabilities and the resource constraints of wireless networks, the delivery of traditional applications to mobile devices and users is a challenge. The current practice of duplication of applications for different contexts needs to be replaced by single-source authoring of applications for integrity of the application content. Context-aware information delivery by content adaptation is the preferred way to meet this challenge.

This talk presents the research work completed and in progress in Computer Science at UNB to meet the challenges of Next Generation networking, both at the network layer and the application layer. The central part of this talk is wrapped by an introduction to our researchers and a photographic glimpse at the latest facilities in our wireline and wireless network laboratories.