

Abstract

Addressing wait times is a challenge for the healthcare system. It is difficult for hospitals to measure precisely wait times and root causes. To do so they need to process events from disparate sources in real-time to measure fine grained care states of the patients, providers, beds and other resources related to care processes. In this paper, we present a state monitoring service for patient flow management that has been prototyped with a Toronto area hospital to integrate events from RFID tracking, business process management (BPM) applications and legacy systems. The results show that BPM and RFID provide events in real-time, but on their own could not fully define all states in the care process. Our state monitoring service integrates BPM and RFID and infers new events that define all the states not handled by BPM and RFID.