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Artificial Intelligence in the service of system administrators

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The LHCb online system relies on a large and heterogeneous IT infrastructure made from thousands of servers on which many different applications are running. They run a great variety of tasks : critical ones such as data taking and secondary ones like web servers. The administration of such a system and making sure it is working properly represents a very important workload for the small expert-operator team.
Research has been performed to try to automatize (some) system administration tasks, starting in 2001 when IBM defined the so-called "self objectives"supposed to lead to "autonomic computing". In this context, we present a framework that makes use of artificial intelligence and machine learning to monitor and diagnose at a low level and in a non intrusive way Linux-based systems and their interaction with software. Moreover, the multi agent approach we use, coupled with a "object oriented paradigm" architecture should increase a lot our learning speed, and highlight relations between problems.

Student? Enter 'yes'. See http://goo.gl/MVv53

yes

Primary author: HAEN, Christophe (Univ. Blaise Pascal Clermont-Fe. II (FR))

Co-authors: BONACCORSI, Enrico (CERN); NEUFELD, Niko (CERN); Prof. BARRA, Vincent (LIMOS, UMR 6158 CNRS, Univ. Blaise Pascal)

Presenter: HAEN, Christophe (Univ. Blaise Pascal Clermont-Fe. II (FR))

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