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Using a multi-agent system and artificial intelligence for monitoring and improving the cloud performance and security

Daniel Grzonka, Agnieszka Jakóbk, Joanna Kołodziej, Sabri Pllana



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- We propose the new Multi-Agent based Cloud Monitoring (MAS-CM) model supporting the performance and security of tasks gathering, scheduling and execution processes in large scale, service oriented systems.
- MAS-CM model is designed to control the performance and chosen security objectives of the distributed environment based on Independent Batch Scheduling.
- We focus on prevention of unauthorized tasks injection and modification, optimization of scheduling process and maximization of available resources usage.
- The effectiveness of MAS-CM has been proofed by an empirical analysis based on genetic-driven implementation of Independent Batch Scheduler and FastFlow framework.
- The results show the effectiveness of proposed approaches and the positive impact on the performance of the environment.

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