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BIO: Ioannis Konstantinou is a senior researcher at the Computing Systems Laboratory of the National Technical University of Athens (NTUA). He is also a Postdoctoral researcher in the Department of Computer Engineering and Informatics of the University of Patras. He received his Diploma in Electrical and Computer Engineering from NTUA in 2004, his M.Sc. in Techno-Economic Systems from NTUA in 2007 and his PhD from NTUA in 2011. His research interests lie in the field of large scale distributed data management systems (Big Data systems, Cloud Computing and P2P). He has co-authored 20 papers and he received a best paper award in the prestigious IEEE/ACM International Conference on Cluster, Cloud and Grid Computing in 2013.

TITLE: Big Data platforms and cloud elasticity: use cases

ABSTRACT

Big data has lead to the birth of novel processing frameworks which have posed new requirements both at the application and the infrastructure level. In this tutorial we give a brief overview of current widely adopted Big data software platforms. We summarize the mainstream Hadoop ecosystem platforms which are used by the majority of companies and research institutions for Big data processing. We outline their architectural approaches towards infinite scalability. This allows them to take advantage of seamless and automated elasticity where infrastructure resources are added and removed according to observed demand and user defined rules. Finally, we give an overview of Big data and elasticity related use cases that span from funded projects to pure research works in which our team is actively participating.