Business Intelligence and Business Analytics cloud computing platform for Autonomic Systems

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Résumé

Nowadays, the amount and diversity of data collected or observed in different fields of science grows exponentially; for this reason, some organizations ask for efficient promoting strategies, methodologies, tools, models to among others, integrate, analyze, visualize, explore, correlate and predict data. Specialized business intelligence and business analytics solutions become a necessity for modern organizations. Moreover, this kind of solutions needs to integrate efficient prediction and even recommendation capabilities, in order to satisfy the requirements of organizations of the future. These capabilities can be easily integrated within autonomic systems. Autonomous properties embedded in software solutions catch attention due to the spread of new technologies, which in turn allow the computers to have a variety of capabilities. Such autonomous properties can be guaranteeing by efficiently management and process internal and external data. Autonomic computing can offer autonomous solutions which are able to change, adapt and manage themselves automatically. Such activities can be performed based on previous observation or learning from the context where the autonomic system is deployed. Moreover, Machine Learning (ML) emerges as a set of algorithms that allow creating models based on past experiences. Somehow, the ML approach provide learning mechanisms, that integrated with autonomic computing, will offer a smart solution when dealing with business intelligence and business analytics. This seminar aims at defining some strategies to perform BI/BA processes over a cloud computing platform, and at the same time completing the solution with autonomous procedures and ML. Particularly, it will be established how to automatically learn from data using ML and autonomic computing; additionally, the case study is to set these solutions over an autonomic QoS network management system.
Ernesto Exposito. Since 2016, Ernesto Exposito is Full Professor at "Université de Pau et des Pays de l'Adour". Between 2006 and 2016, he worked as Associate Professor at INSA Toulouse and researcher at LAAS/CNRS in Toulouse, France. In 2004, he worked as Researcher in the National ICT Australia Limited (NICTA) Research Center in Sydney, Australia. His research interests include new generation of internet of everything (IoE) and smart integration cloud computing services. He has served as chairman and member for many Program Committees. He has been involved and coordinated several actions in national and international research projects. He is author of more than 100 publications including 4 books, 6 book chapters, 24 international journals and 63 regular international, 5 invited international and 7 national conference papers. He is editorial board member of

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Fannia Pacheco. Currently, a PhD student at "Université de Pau et des Pays de l'Adour", she works jointly with the telecommunication company "Thales Alenias Space". Between 2015 and 2016, she joined the "GIDTEC" research team at the Universidad Politécnica Salesiana (UPS), Ecuador. At GIDTEC, She worked as a researcher in topics related to Machine Learning, Signal Processing and fault diagnosis in rotating machinery. She received her M.Sc. Degree in Computer Science from the Universidad de Los Andes, Venezuela, 2015. Her research topic is focused on the characterization and identification of traffic network for improving the QoS in Satellite networks. Additionally, her main interests cover novelty detection, data analysis and intelligent systems.