

TUTORIAL

Dr C. Mohan, IBM Almaden Research Center cmohan@us.ibm.com

mardi 21 octobre 2014, 14h-16h

Amphithéâtre A010 Félix Esclançon

Bat A Grenoble INP Ense3 / Site Ampère

11, rue des Mathématiques - Domaine Universitaire Saint-Martin d'Hères

Modern Database Systems: Modernized Classic Systems, NewSQL and NoSQL

Abstract The last many years have seen the emergence of a new class of database systems which I am calling Modern Database Systems (MDS). They are classified broadly as NoSQL and NewSQL systems. Apart from the development of such systems, traditional DBMS vendors have also extended their decades old systems like DB2, Informix, Oracle and SQL Server with major architectural enhancements that address modern requirements and take advantage of hardware (processor, memory and storage) advances. This talk will do a broad brush analysis of MDS. It is targeted at a broad set of database systems and applications people. It is intended to let the audience better appreciate what is really behind the covers of many of these systems, going beyond the hype associated with these open source, commercial and research systems. The capabilities and limitations of such systems will be addressed. Some application case studies will also be presented. Longer versions of this talk form the basis for tutorials at VLDB 2013 and EDBT 2014 - see <http://bit.ly/CMnMDS>



Dr. C. Mohan has been an IBM researcher for 32 years in the information management area, impacting numerous IBM and non-IBM products, the research and academic communities, and standards, especially with his invention of the ARIES family of locking and recovery algorithms, and the Presumed Abort commit protocol. This IBM, ACM and IEEE Fellow has also served as the IBM India Chief Scientist. In addition to receiving the ACM SIGMOD Innovation Award, the VLDB 10 Year Best Paper Award and numerous IBM awards, he has been elected to the US and Indian National Academies of Engineering, and has been named an IBM Master Inventor. This distinguished alumnus of IIT Madras received his PhD at the University of Texas at Austin. He is an inventor of 40 patents. He has served on the advisory board of IEEE Spectrum and on the IBM Software Group Architecture Board's Council. Mohan is a frequent speaker in North America, Western Europe and India, and has given talks in 40 countries. More information can be found in his home page at <http://bit.ly/CMohan>