Keynote Talk

New Challenges in Performance Engineering

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Abstract

Recent new technologies and paradigm shifts in the IT business make the role of performance engineers significantly more challenging than any other time in the past. Flash technology, virtualization, and Cloud computing provide new options for performance optimization; however, materializing the potential of these technologies in a predictable and cost effective manner is a challenge. New performance management software and planning tools that are based on scientific research and analysis are required to meet the new expectations that users have.

The presentation will discuss some of the new technologies, their potential impact on IT, the tools that are being developed to exploit the technologies and some of the open questions still remaining.

In particular, the presentation will focus on the subjects of Tiered Storage, Performance in Cloud environments, and proactive performance management.

Categories & Subject Descriptors: Computer Systems Organization: Performance of Systems

Subjects: Modeling technique, Performance Attributes, Design Studies

General Terms: Algorithms, Management, Performance

Bio

Amnon Naamad is an EMC Fellow serving as the manager of the Innovation and Systems Engineering team and as the CTO of the Enterprise Storage Division (ESD). Amnon is responsible for generating, collecting, analyzing, and promoting innovative ideas to enhance EMC Symmetrix functionality and performance, and assisting with the translation of these ideas into products and solutions.

Amnon joined EMC in 1997, and shortly thereafter became the Manager of Symmetrix Performance Engineering. In April 2006, he was promoted to lead the Innovation and Systems Engineering Group within Symmetrix Engineering.

Prior to EMC, Amnon was the CTO of I-Logix, where he led the development of the simulation, analysis, and automatic code generators of Statemate. Amnon along with colleagues at I-Logix received the ACM Software Systems Award for 2007, ACM SIGSOFT Impact Paper Award for 2008, and the ICSE Most Influential Paper Award for 1998.

Previous to I-Logix, Amnon held a variety of positions in the high-tech industry as a lead developer. This includes development of software for processing images taken from CAT scanners and software for Optical Character Readers. He also worked in academia teaching Computer Science classes at Tel Aviv University and a class at Brandeis University. He also served four years of active military service in the Israeli Defense Forces.

Amnon holds B.S. and M.S. degrees in Mathematics from Tel Aviv University, and a Ph.D. in Computer Science from Northwestern University. His areas of research included the Design and Analysis of Algorithms, Graph Theory, Computational Geometry and Software Engineering.