

The Problem of Platform Complexity

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Abstract

Today's computer systems contain significant unnecessary complexity. The unnecessary complexity is due to two factors. Firstly, "feature-itis" (too much functionality), and secondly, the level-wise mapping of application functions — via programming languages, operating systems, protocols and middleware onto poor or inappropriate platforms. The unnecessary complexity leads to significant risks and costs (particularly in maintenance). In this presentation, we focus upon the risks associated with poor and often inappropriate platforms upon which application software (often critical) is dependent. The following aspects will be addressed:

- The Problem of Platform Stability
- Historical Perspective (Or — It Did Not Have To Happen This Way)
- What To Do About The Situation?

Harold W. Lawson is the Managing Director of Lawson AB, a consulting company in suburban Stockholm which provides expertise concerning the Engineering of Computer Based Systems. Dr. Lawson has been active in the field of computing since 1958 with broad international experience in industrial and academic environments. He is experienced in many facets of computing and computer-based systems, including software engineering, computer architecture, real-time, programming languages and compilers, operating systems, various application domains as well as computer related education and training.

Dr. Lawson received the Bachelor of Science degree from Temple University (Philadelphia, Pennsylvania) and the PhD degree from the Royal Technical University, Stockholm. He has contributed to several pioneering efforts in hardware and software technologies at Univac, IBM, Standard Computer Corporation, and Datasab. He holds permanent and visiting professorial appointments at several universities including Polytechnic Institute of Brooklyn, University of California, Irvine, Universidad Politecnica de Barcelona, Linköping University, Royal Technical University, University of Malaya and Keio University.

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