Colloquium d'Informatique de l'UPMC Sorbonne Universités

MINIX 3: A Reliable and Secure Operating System

Andrew S. Tanenbaum

Vrije Universiteit, Amsterdam

Amphi 24

4, place Jussieu
75005 Paris
Metro Jussieu

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Most computer users nowadays, based on their experience with TV sets and stereos, expect from a computer: you buy it, plug it in, and it works perfectly for the next 10 years. Unfortunately, they are often disappointed as computers are not very reliable when measured against the standards of other consumer electronics devices.

In an attempt to provide much higher reliability, we have created a new multiserver operating system with only 9000 lines in kernel and the rest of the operating system split up into small components each running as a separate user-mode process.
The talk will discuss the architecture of this system, called MINIX 3 (*)

(*) The system can be downloaded for free from www.minix3.org.

Andrew S. Tanenbaum is a Professor Emeritus in the Computer Science Dept. at the Vrije Universiteit in Amsterdam.
He is the principal designer of three operating systems: TSS-11, Amoeba, and MINIX.
In addition, Tanenbaum is the author or coauthor of five books, which together have been translated in more than 20 languages in over 160 editions.
Tanenbaum is a Fellow of the ACM, a Fellow of the IEEE, and a member of the Netherlands Royal Academy of Arts and Sciences.
He was the recipient of the ACM Karl V. Karlstrom Outstanding Educator Award, the ACM SIGCSE Award for Outstanding Contributions to Computer Science and the IEEE James H. Mulligan, Jr. Education Medal.

contact : colloquium@lip6.fr
http://colloquium.lip6.fr
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