

# IEEE KITCHENER-WATERLOO

## *IEEE Communications (COM)/Vehicular Technology (CVT) Chapter*

### **Prof. D. Cheriton**

Stanford University

## **“The Internet: Problems and Future Directions”**

### **Abstract:**

The Internet has been amazingly successful, changed the world in significant ways and continues to grow and impact the way we work, learn and interact. However, the Internet was designed according to certain principles that seek to provide important properties yet it has departed from some of its original principles, lost some supposedly important properties and is confronting some significant challenges. Various groups have been busy coming up with "next generation" solutions, such as IPv6, yet it is not clear these solutions solve the real problems.

In this talk, I claim that the Internet architecture is too important to be ignored or wrong, and yet it is both right now. I further explore what I think are some key problems as well as some promising directions for the future.

### **Biography:**

David Cheriton is a Professor of Computer Science and Electrical Engineering at Stanford University. His research includes the areas of high-performance scalable distributed systems, Internet architecture and protocols and hardware-software interaction, particularly at the operating system level. He was the chief designer of the V Distributed system, the VMTP protocol and the ParaDiGM scalable multiprocessor architecture. Prof. Cheriton was co-founder of Granite Systems, a leading developer of gigabit Ethernet products, acquired lock, stock and barrel by Cisco Systems where he was key architect of the Catalyst 4000 products. More recently, Professor Cheriton was co-founder and President/CTO of Kealia, Inc, recently acquired by Sun Microsystems. Prof. Cheriton received his Ph.D. in Computer Science from the University of Waterloo in 1978. For the past 22 years, he has been at Stanford. Most recently, he has been technical advisor with Google.com, VMware, Kleiner-Perkins, Caufield and Byers and few stealth efforts.

**DATE:** Thursday, September 23, 2004

**TIME:** 4:15 pm

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