

Challenges in the Design and Analysis of Content-centric Networks

Jim Kurose
Department of Computer Science
University of Massachusetts
Amherst, MA 01003 USA

Over the past 100 years, communication networks have evolved from a primary emphasis on circuits to packets to (most recently) content. While architectural visions articulated at each such evolutionary point have often been “pure” and “minimalist,” the control planes of networks embodying the architecture have become increasingly richer, more sophisticated, and more complex. Content networks – with in-network content storage and the possibility of cloud-based control – present nearly limitless protocol design possibilities and analysis challenges. We begin this talk with a few

reflections on this network evolution. We then identify and discuss several fundamental challenges in the design and analysis of content-caching networks including content location, content mobility and the performance analysis of networks of caches.

Categories and Subject Descriptors

A.1 INTRODUCTORY AND SURVEY

Keywords

Content Centric Networking

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