

PALESTRA

Dia 29/08/2016 das 11:00 às 12:00 – Sala H - 301

Cloud Storage for Mobile Users Using Pre-Positioned Storage Facilities

Resumo - We propose a cloud-like file storage and sharing system designed for mobile users. Our system relies on a collection of strategically pre-positioned repositories within which files are replicated without relying on a conventional infrastructure-based network. Once stored in the first encountered repository, copies of the files are carried by the initial uploader or subsequent users and distributed among the other repositories. Having multiple copies available at different repositories thus increases the likelihood of finding the requested files in a timely fashion. Files can later be retrieved by other users at different locations. We are interested in processing user storage and retrieval requests before their deadlines expire. We design an algorithm to place the repositories such that they serve a maximum number of requests before their deadlines expire. We evaluate our system using mobility traces of San Francisco city buses. We show the impact of the number and placement of repositories on request success rate. We also show the benefits of mobility-leveraged file distribution.



Prof. Prométhée Spathis

Université Pierre et Marie Curie – França

Bio : Prométhée Spathis (promethee.spathis@lip6.fr) is an associate professor at Université Pierre et Marie Curie (UPMC) since 2005. He received his Ph.D. in Computer Science from UPMC in 2003. His current research is focused on the design of alternative communication systems enabled by the mobility of a wide range of entities such as electric cars or public buses. He is studying how these alternative systems can reduce the dependency on conventional data networks. His work has contributed in characterizing the mobility as a network resource in the context of traffic offloading and cloud-like applications.