



Departments of Computer Science

Security Challenges of Distributed Content Delivery on the Web

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Hosted by Reza Curtmola

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Coffee: 2:15 PM – 2:30 PM

Time: 2:30 PM – 3:30 PM

Location: GITC 4402 (4th floor Seminar Lecture Hall)

WebEx Link: <https://njit.webex.com/njit/j.php?MTID=mc9c7bfd8b426f7980b45e7f1ff286499>

Abstract:

Today's Web heavily relies on functionalities such as caching, security filtering and load balancing for efficiently delivering the web contents. All of these functionalities are distributed in nature. For example, with load balancing the request load is distributed over a set of servers, and with security filtering the security controls are outsourced to external servers, and finally with caching the contents are stored on multiple servers to be physically closer to clients.

My research has shown that this distributed nature of content delivery creates an abundance of security challenges for the modern Web. In this talk, I will share with you three types of these security challenges: 1) a fundamentally new class of cyber-attacks, 2) enhanced fingerprinting capabilities for attackers and 3) a new approach for circumventing web application firewalls.

Bio:

Bahrüz Jabiyev is currently a postdoctoral scholar in the Computer Science Department at Dartmouth College. He recently received his doctoral degree from the College of Computer Sciences at Northeastern University. His research is centered around improving the security of the Internet with a focus on the web and network security. The products of his research have been adopted by many security and software teams around the world, such as the developer team of Apache Traffic Server, which is an HTTP server that powers several CDN companies. His papers have been included in the curriculum of various academic institutions, such as CISA in Germany, as the latest advancements in web security research.