

SEMINAR II (1 ECTS)

Speaker:

Roberto Di Pietro

Title:

Data Survivability

Abstract:

In this series of lectures the speaker will focus on what are the threats and countermeasures (in several and compelling contexts) to have data survive against an adversary motivated to delete it.

In particular, we will introduce first the concept of epidemiology-inspired solutions to have data survive in mobile networks.

Later, we will focus on the same problem of data survivability, but focusing on the checks required to assure that outsourced data (e.g. to GoogleDocs) is still in place. Finally, we will highlight what are some of the threats and countermeasures in the novel context of data deduplication (e.g. in Dropbox).

When and Where:

13-03-2012, h. 13:00-14:00; Room 2.1.C17

14-03-2012, h. 11:00-14:00; Room 2.1.C17

16-03-2012, h. 11:00-14:00; Room 2.1.C17

Short Bio:

Roberto Di Pietro is currently an Assistant Professor at the Department of Mathematics of Università di Roma Tre - Roma, Italy.

He is the PI of the SPRINGeR research group at the same University.

He received the Ph.D. in Computer Science from the Università di Roma "La Sapienza", Italy, in 2004.

In 2004 he also received from the Department of Statistics of the same University a Specialization Diploma in Operation Research and Strategic Decisions.

He received the B.Sc. and M.Sc. degree in Computer Science from the Università di Pisa, Italy, in 1994.

His main research interests include: security and privacy for mobile, ad-hoc, and wireless networks; Data Mining; Secure Virtualization; security and privacy for distributed systems (e.g. Cloud); secure broadcast; applied cryptography; and, computer forensics.

More information at:

<http://ricerca.mat.uniroma3.it/users/dipietro/>

Suggested readings:

Roberto Di Pietro and Nino Vincenzo Verde.

“Introducing epidemic models for data survivability in Unattended Wireless Sensor Networks”.

In Proceedings of the 12th IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM'11), pages 1-6, June 20-23, 2011, Lucca-Italy.

Roberto Di Pietro and Nino Vincenzo Verde.
“Epidemic data survivability in Unattended Wireless Sensor Networks”.
In Proceedings of the 4th ACM Conference on Wireless Network Security
(WiSec'11), pages 11-22, June 15-17, 2011, Hamburg-Germany

Giuseppe Ateniese, Roberto Di Pietro, Luigi V. Mancini and Gene Tsudik.
“Scalable and Efficient Provable Data Possession”.
In Proceedings of the 4th International Conference on Security and Privacy in
Communication Networks (SecureComm'08), pages 1-10, September 22-26, 2008
Istanbul, Turkey, ACM press.

Roberto Di Pietro and Alessandro Sorniotti.
Boosting Efficiency and Security in Proof of Ownership for Deduplication
(work in progress)

Assignment:
will be exposed during the lectures.