Netsec 2006

Janne Lindqvist TKK/TML Researcher, Project Manager

Short CV

- Conference and Workshop Papers
- Janne Lindqvist, IPv6 Stateless Address Autoconfiguration Considered Harmful, to appear in Military Communications Conference MILCOM 2006, Washington, D.C., USA, October 23-25, 2006.
- Janne Lindqvist and Laura Takkinen, Privacy Management for Secure Mobility, to appear in ACM CCS Workshop on Privacy in Electronic Society WPES 2006, Alexandria VA, USA, October 30, 2006.
- Janne Lindqvist, Antti Ylä-Jääski and Jukka Manner, Resilient IPv6 Multicast Address Allocation in Ad Hoc Networks, in Proceedings of the 2006
 IEEE International Workshop on Wireless Ad-hoc and Sensor Networks IVWAN 2006, New York, 28-30 June 2006.
- Janne Lindqvist and Sanna Limatainen, VERKKOKE: Online Teaching Environment for Telecommunications Software and Routing, One page abstract in Proceedings of The Eleventh Annual Conference on Innovation and Technology in Computer Science Education ITICSE'06, University of Bologna, Italy, 26-28 June 2006. [Online (ACM)]
- Janne Lindqvist, Sanna Liimatainen and Tuomo Katajamäki, Secure Pairing Architecture for Wireless Mobile Devices, in Proceedings of IEEE 63rd Vehicular Technology Conference IEEE VTC 2006 Spring, 7 10 May 2006, Melbourne, Australia. [Online (IEEE)]
- Janne Lindqvist and Sasu Tarkoma, Protecting Internet Connectivity of Hybrid Ad Hoc Network Gateways, in MINEMA Workshop, February 7-8 2006, Leuven, Belgium. [Online]
- Janne Lindqvist, Micro Mobility Routing and Multicasting in Hybrid Ad Hoc Networks, in Proceedings of IEE Mobility Conference 2005, Guangzhou, China, 15.11-17.11.2005.
- *Mikko Martsola, Timo Kiravuo and Janne Lindqvist*, Machine to Machine Communication in Cellular Networks, in Proceedings of IEE Mobility Conference 2005, Guangzhou, China, 15.11-17.11.2005.
- Janne Lindqvist, Suspend Mode Mobility Management Problem, in Proceedings of the 6th IEE International Conference on 3G and Beyond IEE 3G 2005, London, 7.11. 9.11.2005, p. 245-248. [Online]
- Technical Reports
- Petri Kärhä, Jaakko Hollmen, Satu Karling, Jaakko Kujala, Petri Kuosmanen and Janne Lindqvist, Opinnäytetyön ohjaus Teknillisessä korkeakoulussa, Helsinki University of Technology Metrology Research Institute Report 28/2005. [Online]
- Teemu Koponen, Janne Lindqvist, Niklas Karlsson, Essi Vehmersalo, Milka Komu, Mika Kousa, Dmitri Korzun and Andrei Gurtov, Overview and Comparison Criteria for the Host Identity Protocol and Related Technologies, Technical Report, February 2005. [Online]
- Internet Drafts
- Janne Lindqvist, Establishing Host Identity Protocol Opportunistic Mode with TCP Option (draft-lindqvist-hip-opportunistic-01.txt), March 6, 2006, work in progress, Expires: September 7, 2006. [Online]
- Janne Lindqvist, Piggybacking TCP to Host Identity Protocol (draft-lindqvist-hip-tcp-piggybacking-00.txt), July 11, 2006, work in progress, Expires: January 12, 2007. [Online]

Topics

- Group Address Configuration for Multicast Groups
- Anonymous routing
- Network Perimeter Protection

Group Address Configuration for Multicast Groups: Related Work

- Janne Lindqvist, Antti Ylä-Jääski and Jukka Manner, Resilient IPv6 Multicast Address Allocation in Ad Hoc Networks, in Proceedings of the 2006 IEEE International Workshop on Wireless Ad-hoc and Sensor Networks - IVWAN 2006, New York, 28-30 June 2006.
- We have shown that random address allocation is the most secure and bandwidth-efficient way to allocate multicast addresses in ad hoc networks.

Objective for Seminar Paper

- What is the state of the art in informing possible group members that a multicast group is available.
 - Broadcast push?
 - Broadcast pull?
 - Etc.
- Analysis of the state of the art, security, bandwidth, etc.

State of the Art in Anonymous Routing

- Katti et al. "Slicing the Onion: Anonymous Routing without PKI" 4th ACM Workshop on Hot Topics in Networks (HotNets), Nov. 2005
- Lots of anonymous routing for ad hoc networks.

State of the Art in Network Perimeter Protection

- Firewalls
 - Traditional packet filtering
 - NATs
 - Application Proxies
- IPsec gateways
- Management issues?
- Martin Casado et al. "SANE: A Protection Architecture for Enterprise Networks" 15th USENIX Security Symposium