LOBSTER

Large-Scale Monitoring of Broadband Internet Infrastructure

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FORTH UNINETT

TF-CSIRT

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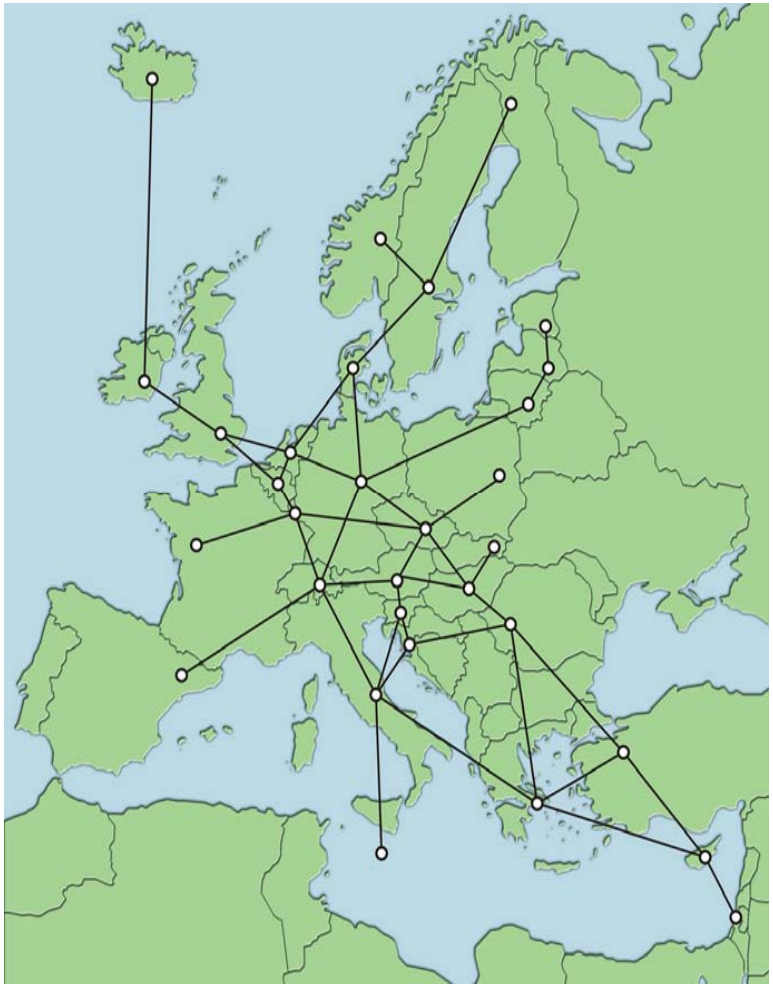
LOBSTER overview

- Specific Support Action project
  - Start: 1 October 2004
  - Finish: 31 December 2006
- 9 partners
  - ALCATEL, CESNET, ENDACE, FORTH, FORTHNET, VRIJE, TERENA, TNO, UNINETT
- Main goal:
  - To develop an advanced European infrastructure for passive network traffic monitoring.



Motivation

- Improve our understanding of the traffic on the Internet
  - Which applications generate the most traffic?
- QoS
  - Packet loss, packet reordering, one way delays, ...
- Security
  - “Friendly fire”
  - Viruses and worms

Well known worms

- Summer 2001: CODE RED worm
  - Infected 350,000 computers in 24 hours
- January 2003: Sapphire/Slammer worm
  - Infected 75,000 computers in 30 minutes
- March 2004: Witty worm
  - Infected 20,000 computers in 60 minutes

Technical challenges

- Network speed
  - Passive monitoring on slow networks is easy
  - Passive monitoring on high speed networks is HARD
  - 10GB/s
    - 1250MB/s
    - Worst case: ~24Mpps
    - Normal network: 1-1.5Mpps
- Need specialized hardware:
  - SCAMPI adapter, DAG cards etc.

Technical challenges(2)

- Distributed access to monitoring probes
  - DMAPI
- Anonymization
  - In hardware and/or software
  - SiSaL: Scripting Sanitization Language

LOBSTER focuses

- An advanced infrastructure for passive monitoring
- Common programming enviroment – DMAPI
- Anonymization
- Applications
  - Contribution to the early warning system
  - Network monitoring applications

Timeline

- Early 2005
  - Questionare
  - Requirements
- 2005
  - Design
  - Development of basic components
- Late 2005
  - First deployment phase
- 2006
  - Development of applications
  - Second deployment phase

Relation with TF-CSIRT & GN2 JRA2

- Questionnaire (February – March)
  - Requirement collection
    - Information about the organisation
    - Passive monitoring issues
    - Interest in collaboration with LOBSTER
  - Acceptable Use Policy
    - Policy issues
  - Anonymizatios issues

Relation with TF-CSIRT & GN2 JRA2

- **Next LOBSTER meeting** – 21-22 March, Amsterdam (TERENA's office)– interested?- Join!
- LOBSTER people are available to follow GN2 JRA2 activities
- Website: www.ist-lobster.org
- News, announcement list - http://www.ist-lobster.org/announcements/
- Joining the infrastructure – end of 2005

More information

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