Data Centric Networking (R202)

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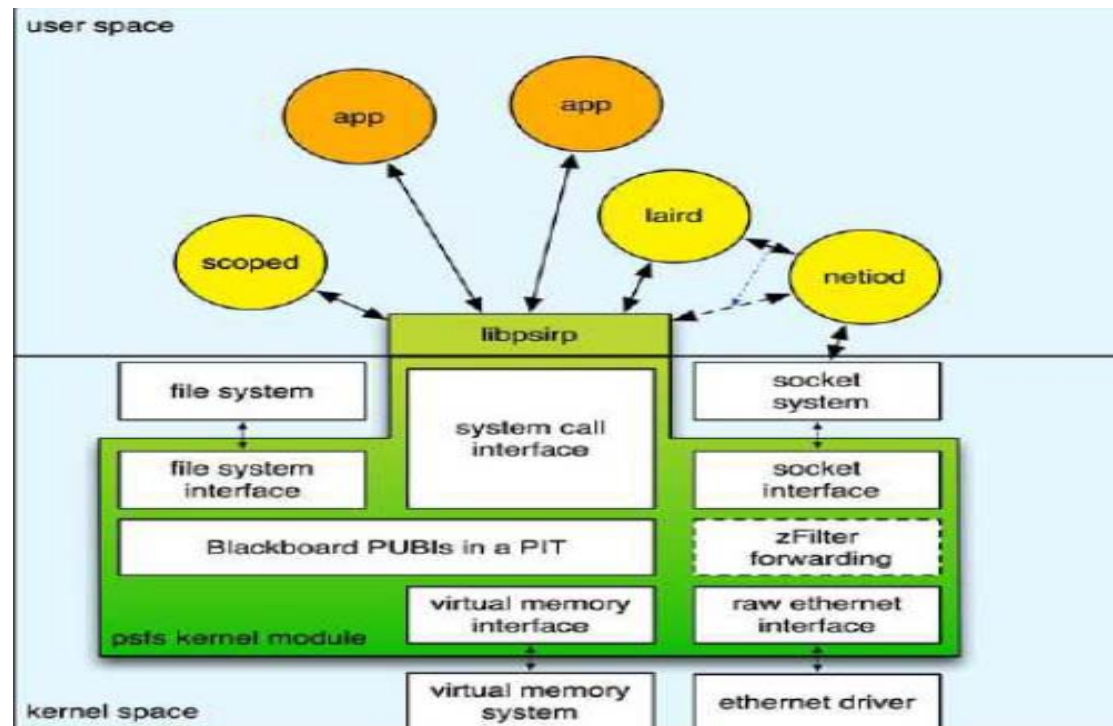
Project Overview

- Large scale project funded by the EU

- Replace the IP layer with new type of internetworking

- Publish/subscribe project

- Completed in October 2010

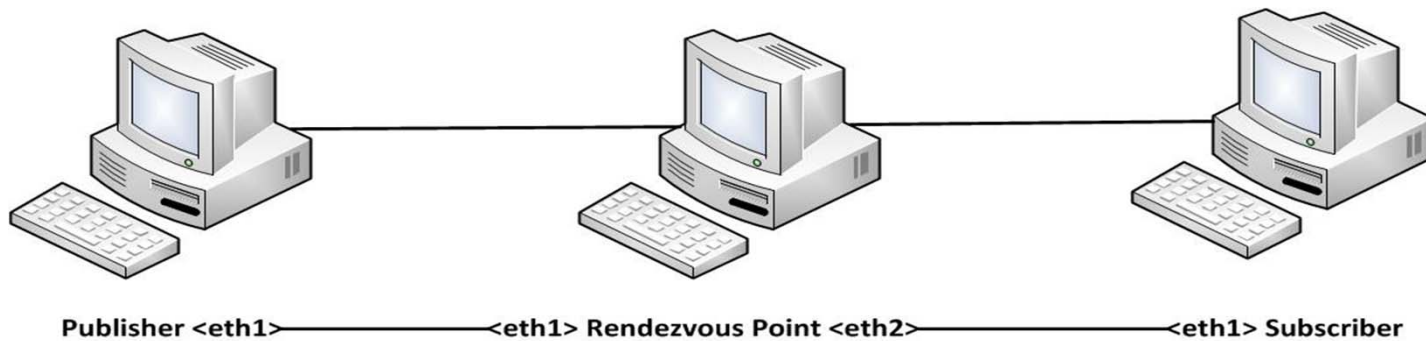- Followed up by PURSUIT

Node Architecture

- Lower Layer – in kernel, psfs, module, virtual memory

- API – C, Python, Ruby

- Upper Layer – system call interface

Prototype Limitations

- Not easy to configure

- Limits on the file size of publications

- Limits on the number publications

- Limits on the number of versions per publication

Demonstration

Publisher \<eth1\>————————————\<eth1\> Rendezvous Point \<eth2\>————————————\<eth1\> Subscriber

- 3 machines with CentOS Linux
- 1 instance of VirtualBox on each machine
- VM interface bridged with physical interface
- Point-to-point links between interfaces
- FreeBSD installed on each VM
- Blackhawk prototype installed from source on each VM
- Written an application to publish and subscribe to files

Questions & Answers

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