

Usage of PPSP System

A Simulation Implementation

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CONTENT

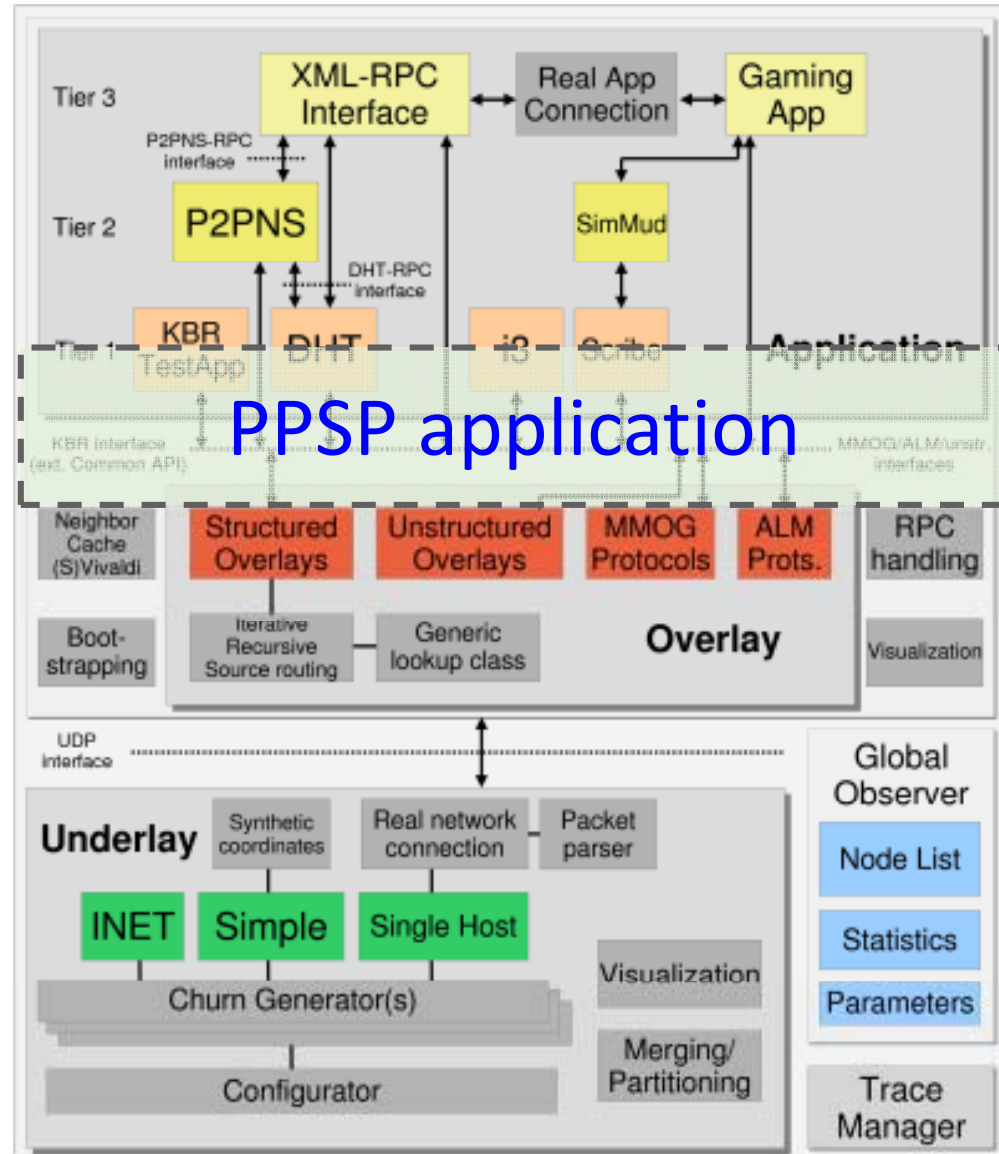
- **Simulation Implementation**
- Functional and Performance Testing
- Future Works

Simulation Implementation

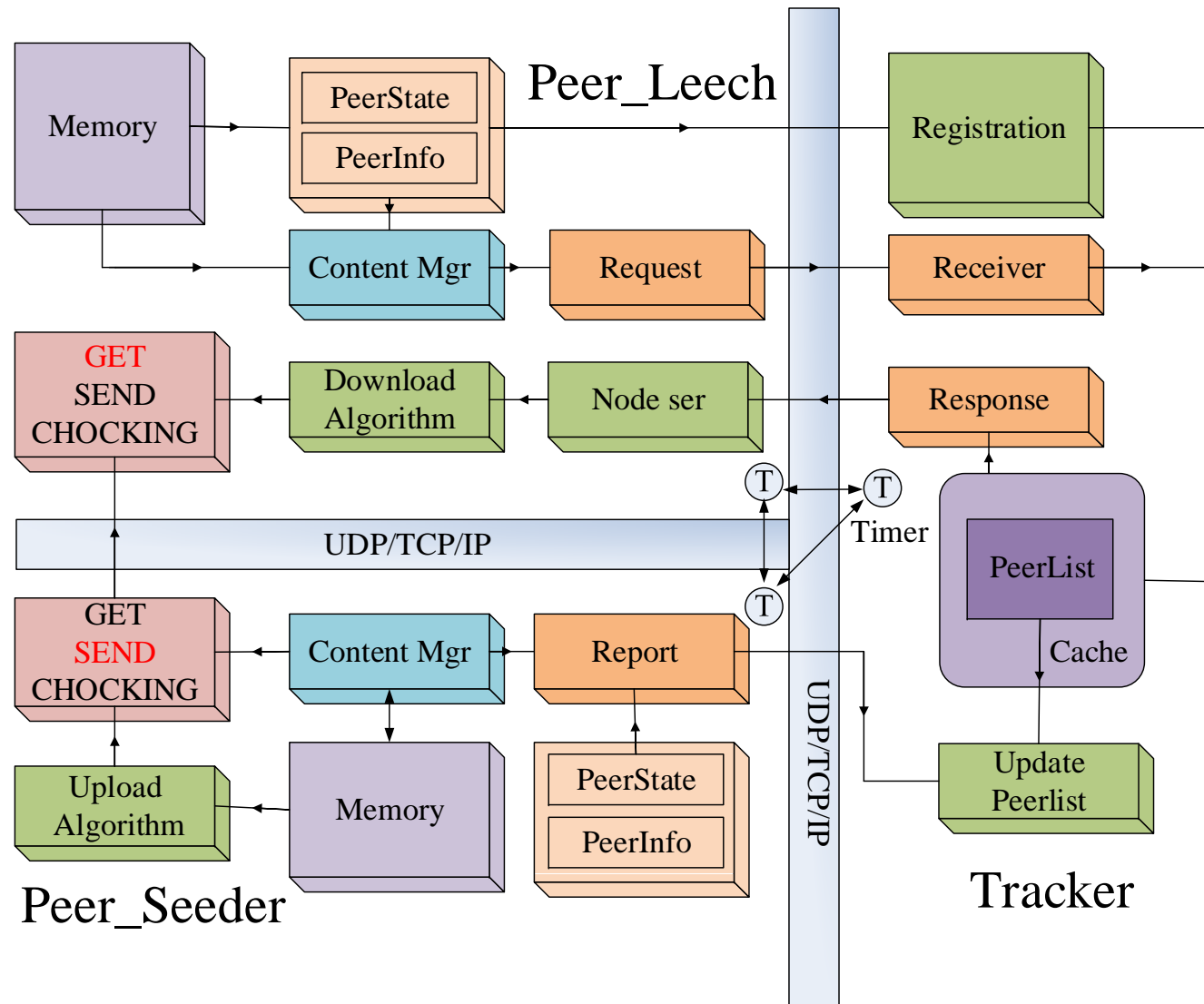
- a featured and extensible implementation based on **OMNeT+INET+Oversim**
 - simplicity, high degree of modularity
 - availability of several protocol implementations ranging from a complete TCP/IP protocol stack to a large set of overlay protocols

Module Architecture

- Scalability
- Interactive GUI
- Churn Models
- Statistics
- ...



Module Architecture



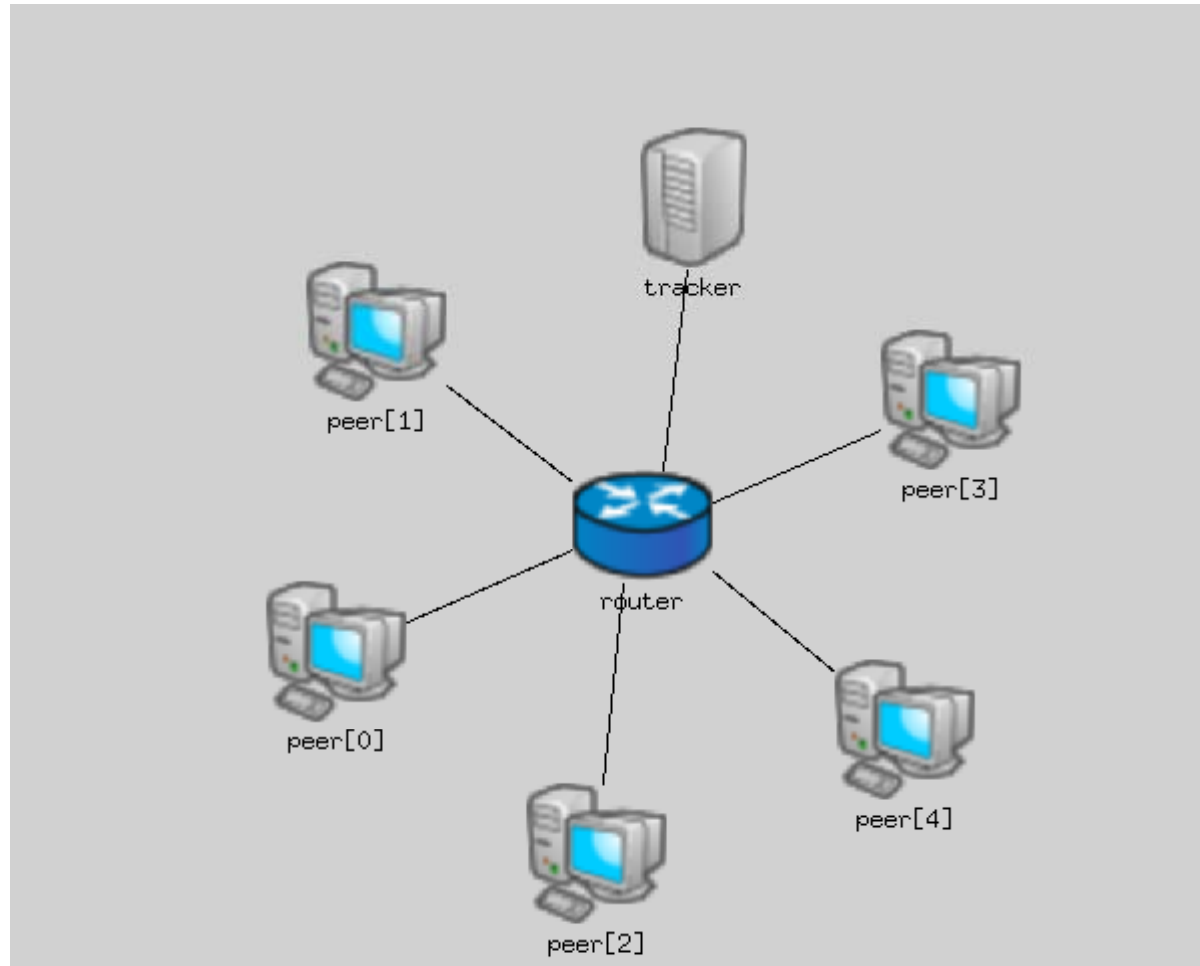
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- Simulation Implementation
- **Functional and Performance Testing**
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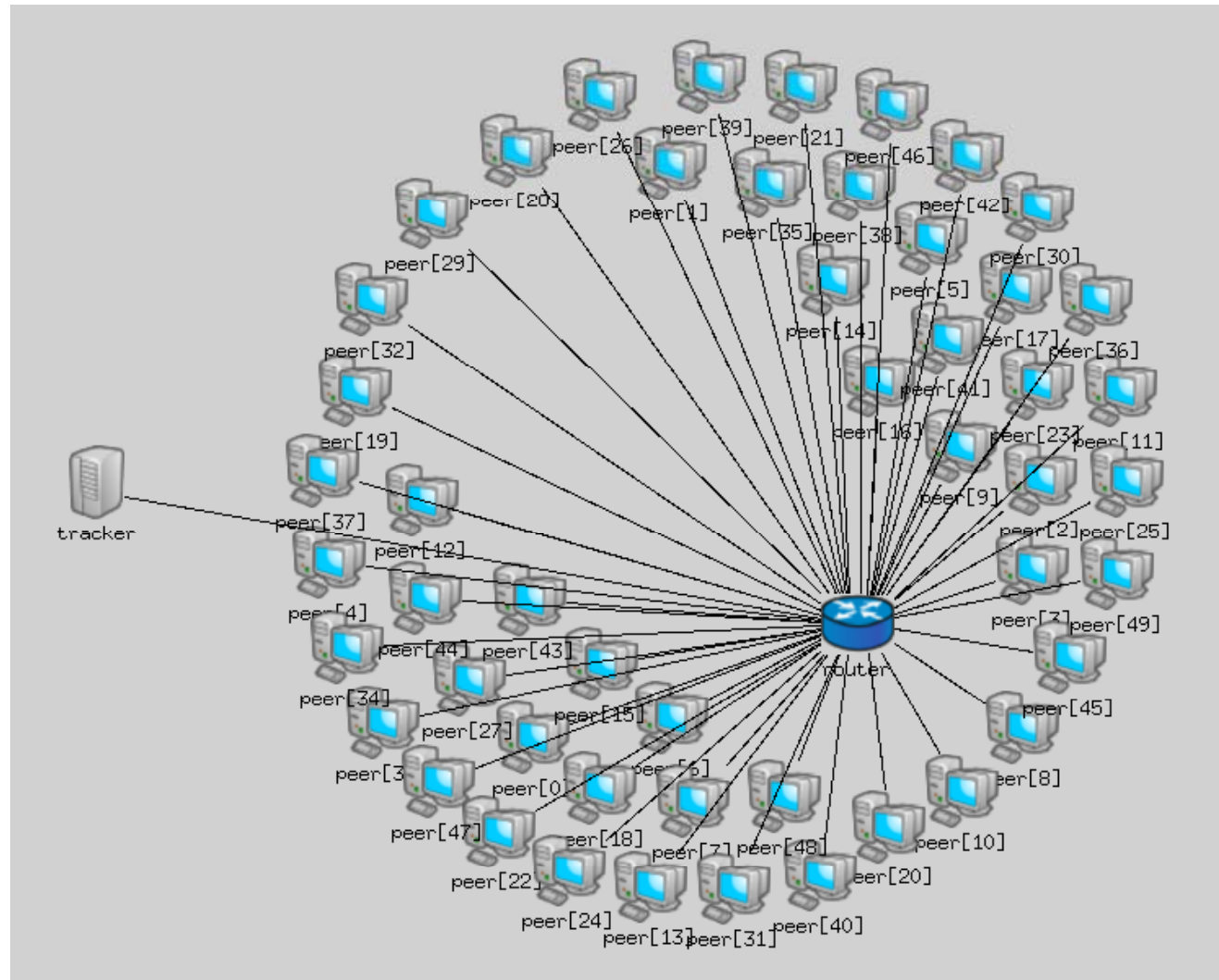
Simulation Scenes

- Star Network(one tracker, two seeder and several leechers)
- Different topology scales: 5, 50, 250 peers
- Static topology(now)
- Dynamic topology(next)

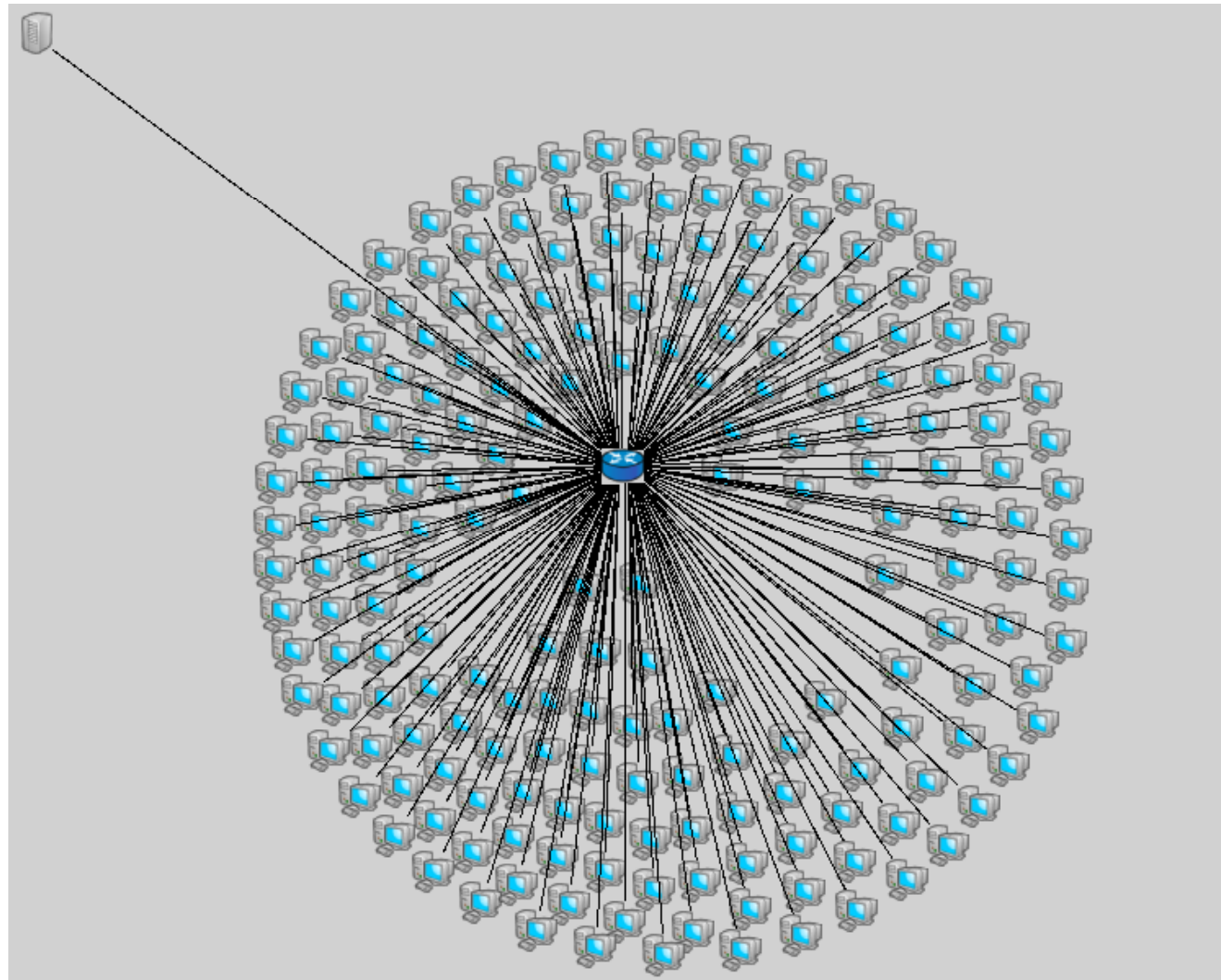
Simulation Scenes



Simulation Scenes



Simulation Scenes

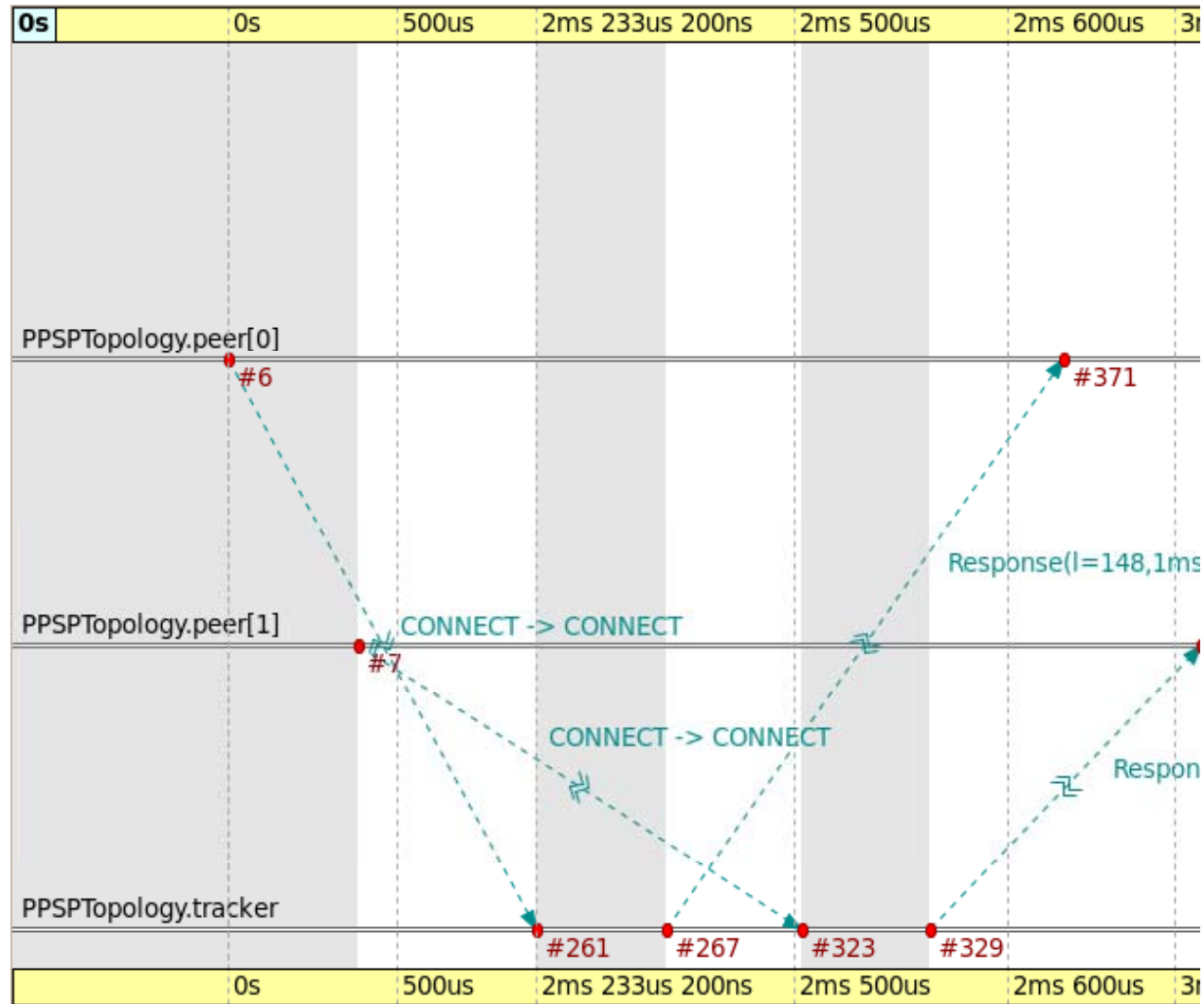


Simulation Environment and Parameter Values

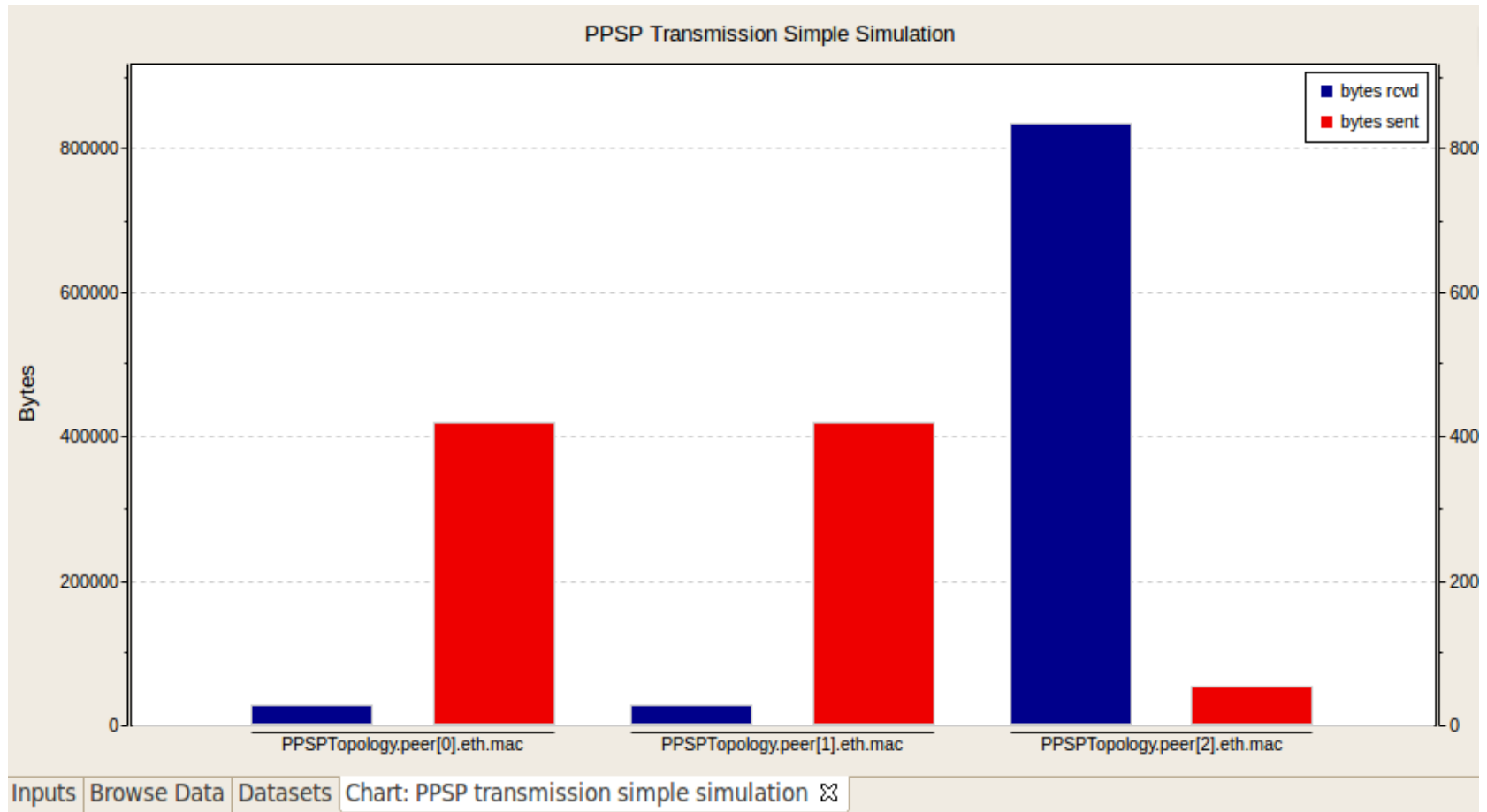
Hardware	Software
CPU i5 2.5GHz	OMNeT++ 4.2.2
RAM 4G	INET2011
Hard Disk 1T HDD	Oversim2012
	Ubuntu 10.04

Parameter	Value
File Size	500MB
Swarm Size	5, 50, 250...
Chunk Size	1024bytes
Keep Alive	120sec
Track_timeout	[60, 300]sec
Bandwidth	10Mbps
Uploadrate	[30, 521]KB

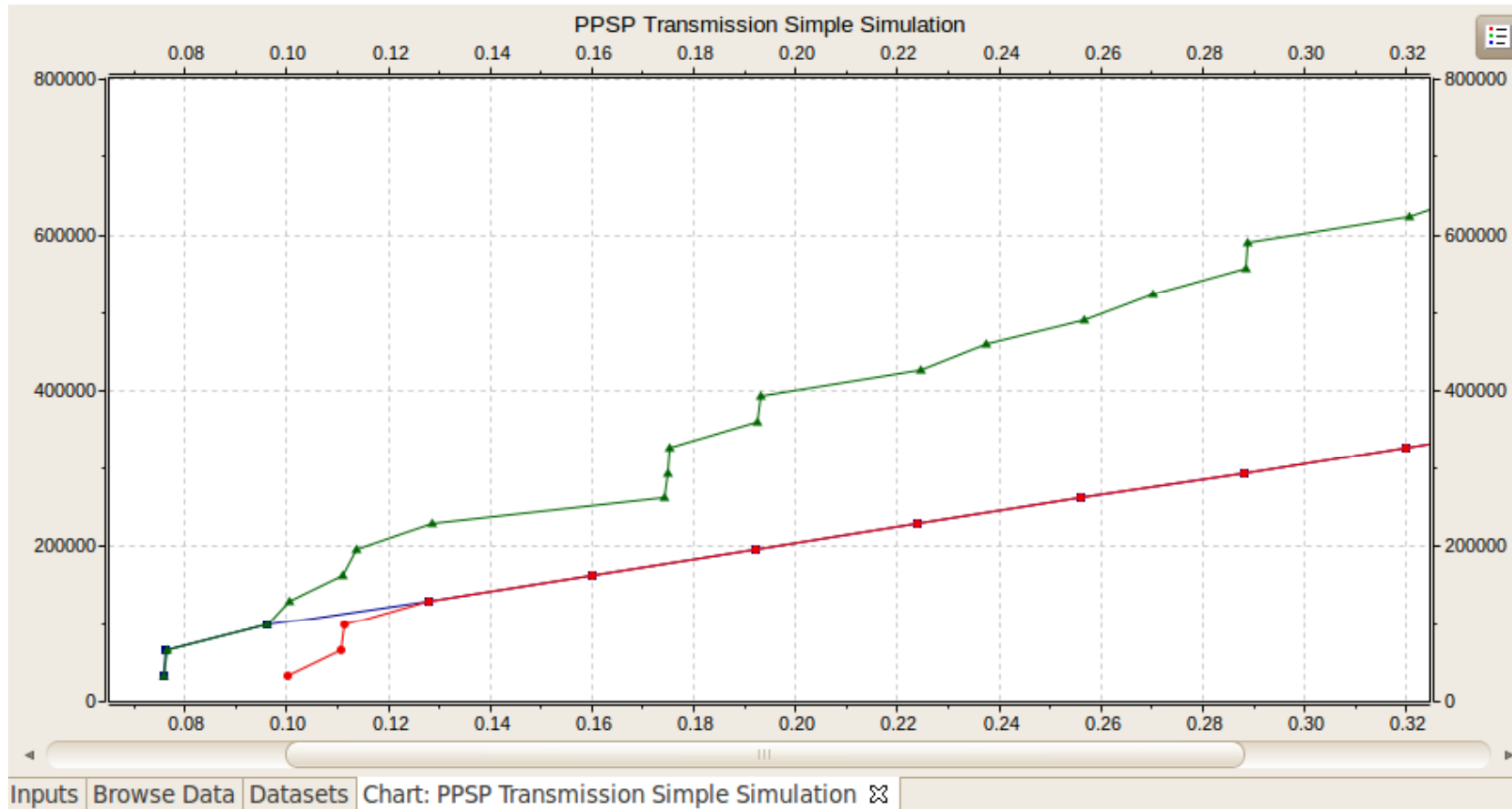
Functional and Performance Testing



Functional and Performance Testing



Functional and Performance Testing



CONTENT

- Simulation Implementation
- Functional and Performance Testing
- **Future Works**

Future Works

- Live streaming support
- Wireless support
- Churn problem research
- NAT support

**THANK YOU &
Comments?**