Home Network Performance Diagnosis

Renata Teixeira
Muse Team
Inria Paris-Rocquencourt
Internet connectivity is central in today’s homes

- **Problem**
  - The home network can disrupt networked applications
  - Users don’t know what is happening

- **Goal:** easy-to-use home network diagnosis tools
  - Assist both users and ISPs
Is bottleneck in ISP or home wireless?

- Passive measurements at gateway
  - Performance bottlenecks experienced by users
  - Gateway directly “sees” bottlenecks

- Threshold-based bottleneck detection
Home troubleshooting from the browser

- **Build on top of the web browser**
  - Available on most platforms, familiar interface
  - Fathom Firefox extension to perform measurements

- **Leverage collaboration among devices**
  - Multiple Fathom-enabled devices
  - Instrumented home gateway (optionally)
    - Open source projects such as OpenWRT/BISmark

- **Leverage device mobility within the home**
  - Ask users to help by moving around the home