

ILNP – Identifier Locator Network Protocol

FreeBSD 14

Dynamic host multihoming

<https://ilnp.cs.st-andrews.ac.uk/>
University of St Andrews
NetDEF



People

- Rodney Grimes
- Alistair Woodman
- Saleem Bhatti
- (With support from the ICANN Grant Program.)

Special mention: Shubh Sinhal, extended Wireshark support for ILNP 😊

Identifier Locator Network Protocol

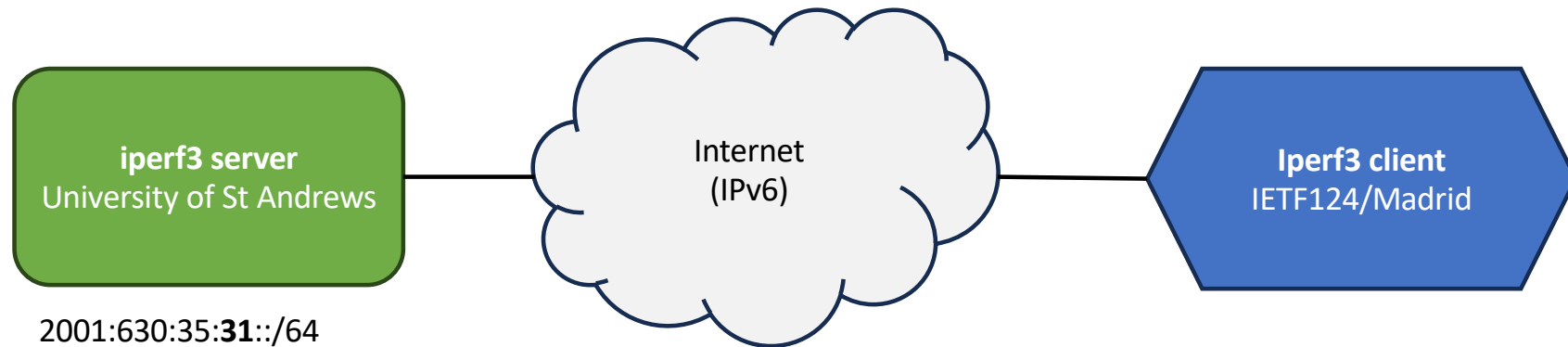
- RFCs 6740-6748
- Identifier-Locator based addressing in IPv6.
- No tunnels.
- No proxies.
- No NAT.
- No changes to routing or switching.
- No changes to existing applications.

Testing and Experiment

Dynamic multihoming TCP and UDP

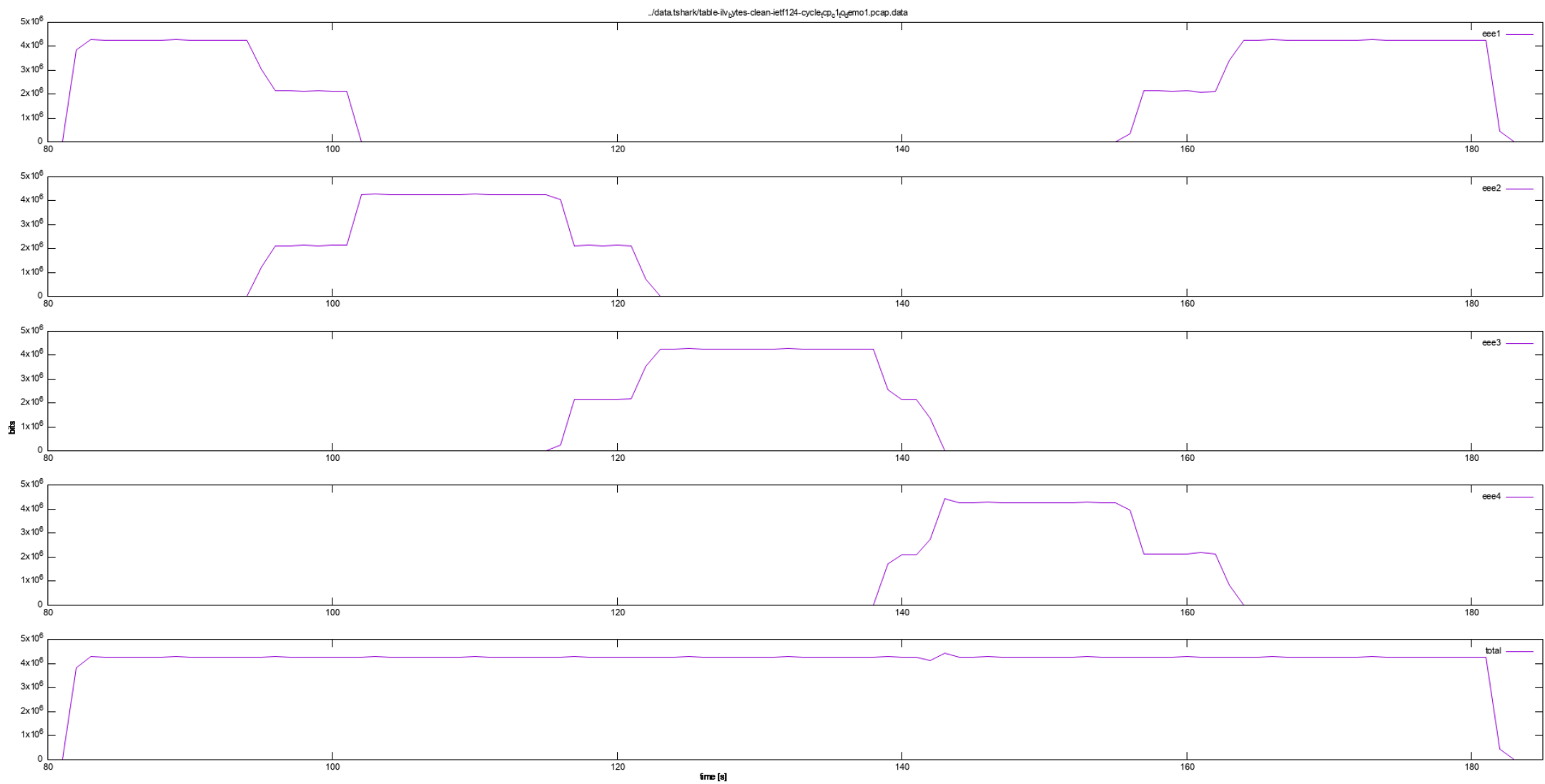
- Dynamic path changes and multipath testing:
 - Client adds/removes paths (Locators), dynamically, for multipath TCP and UDP flows, standard *iperf3* binary.
- **DASH streaming over TCP with multipath:**
 - HTTPS / TCP CUBIC / ILNP.
 - **Standard nginx binary and Firefox binary on FreeBSD 14.**
- **Updating to current FreeBSD kernel (in progress).**

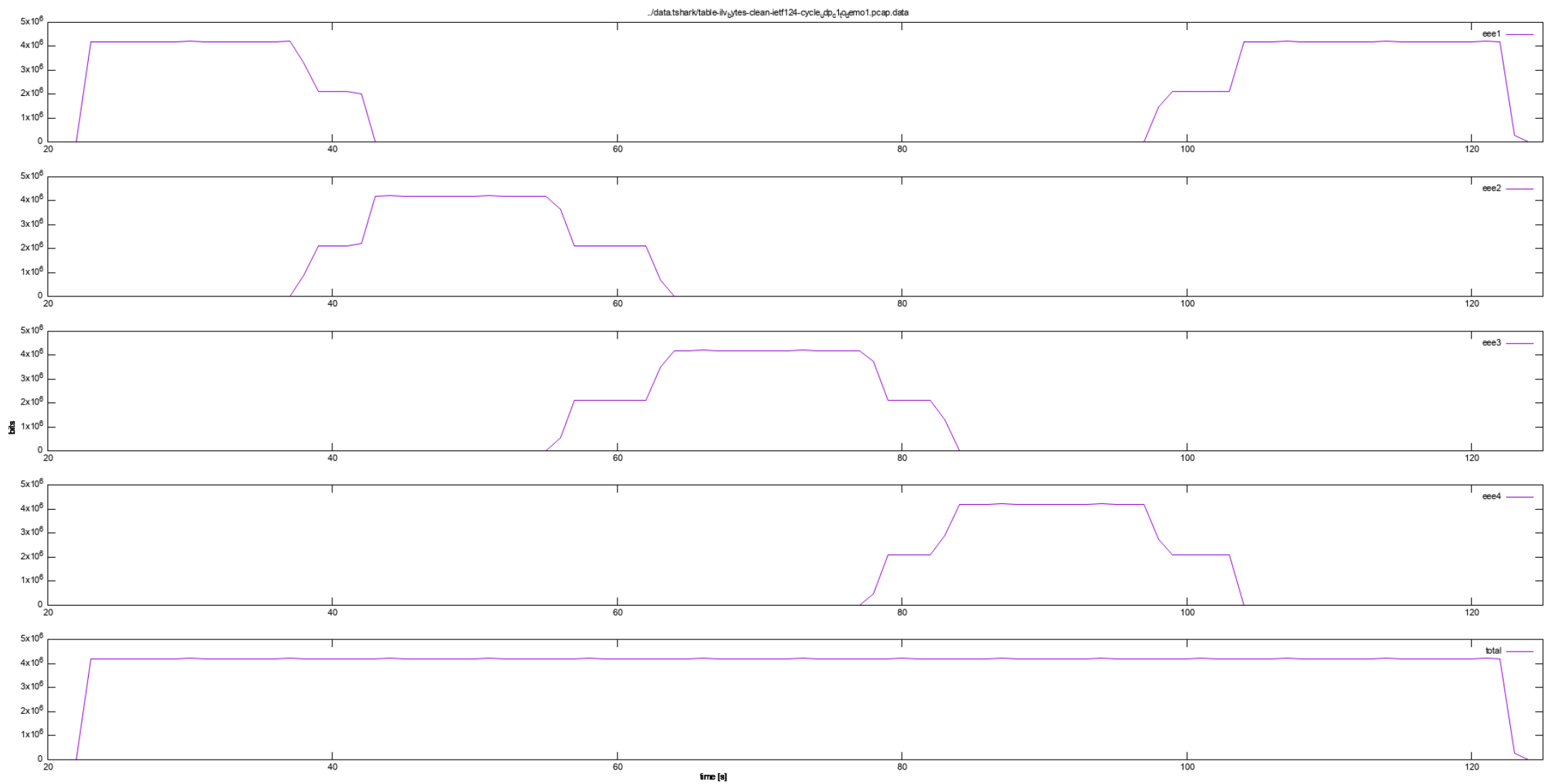
Network configuration

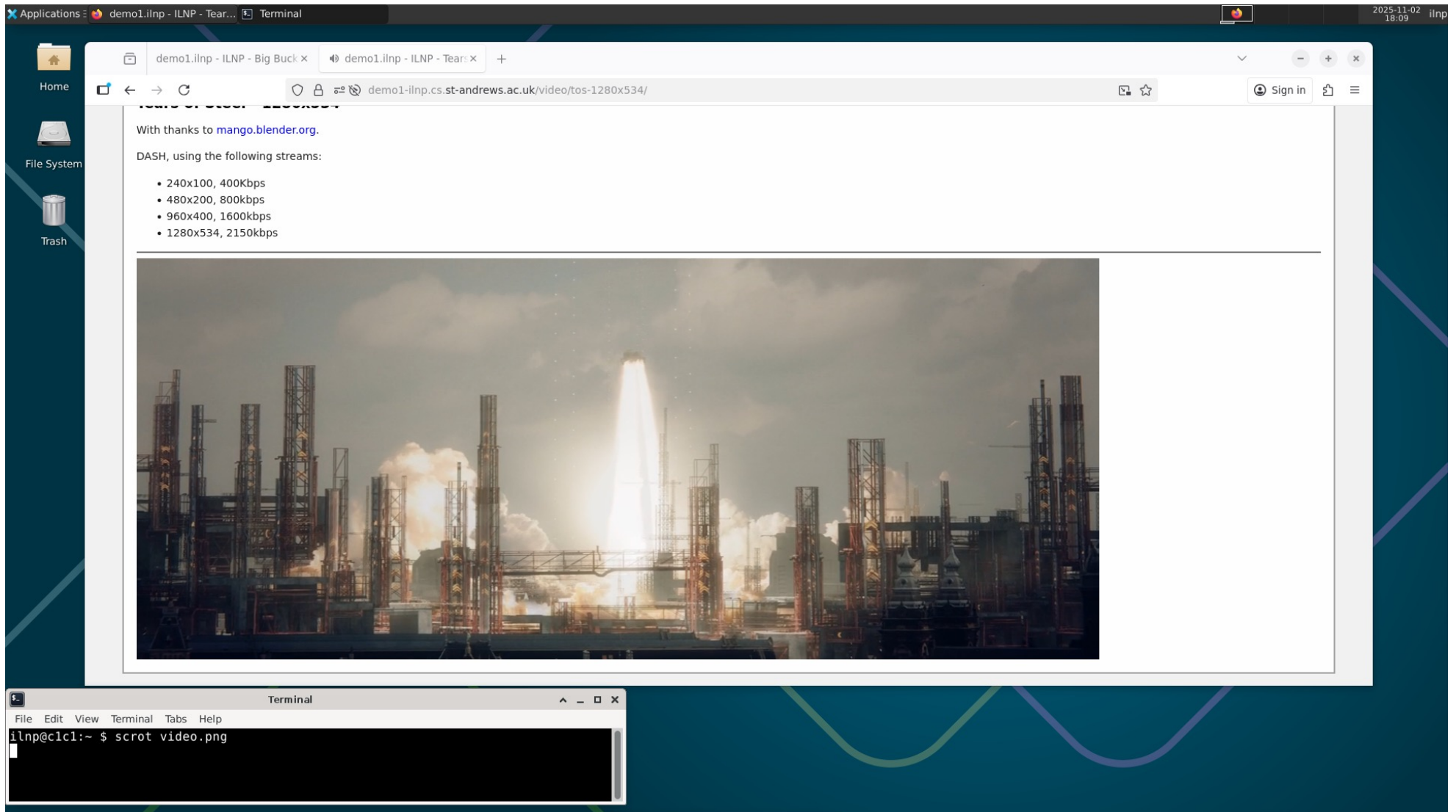


2001:670:1232:eee1::c1c1/64
2001:670:1232:eee2::c1c1/64
2001:670:1232:eee3::c1c1/64
2001:670:1232:eee4::c1c1/65









More information on ILNP

- Links to the following on the ILNP web-site:
 - FreeBSD code on github.
 - RFCs, papers, and datasets.
- <https://ilnp.cs.st-andrews.ac.uk/>

