

# 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

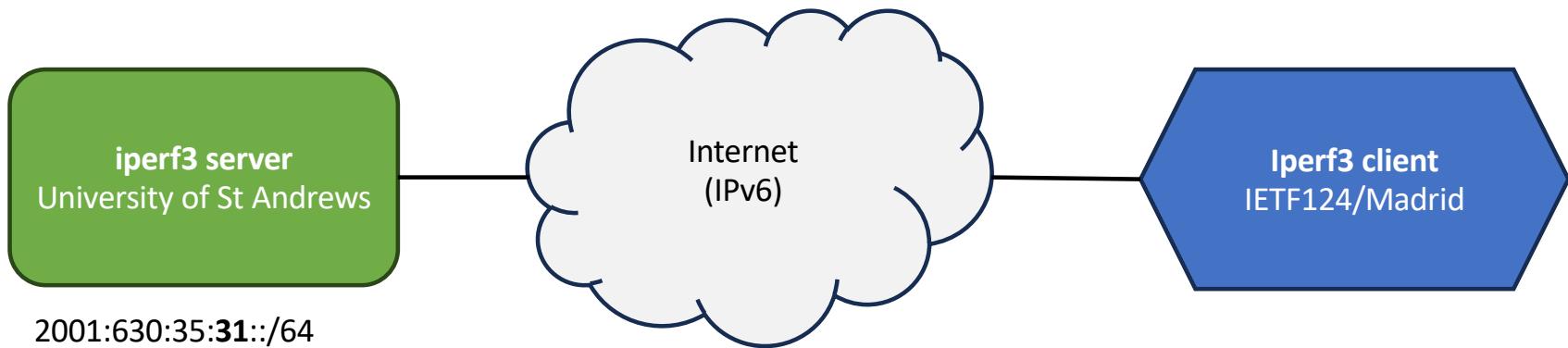
- RFCs 6740-6748
- Identifier-Locator based addressing in IPv6.
- No tunnels.
- No proxies.
- No NAT.
- No changes to routing or switching.
- No changes to existing applications.

# Testing and Experiment

## Dynamic multihoming TCP and UDP

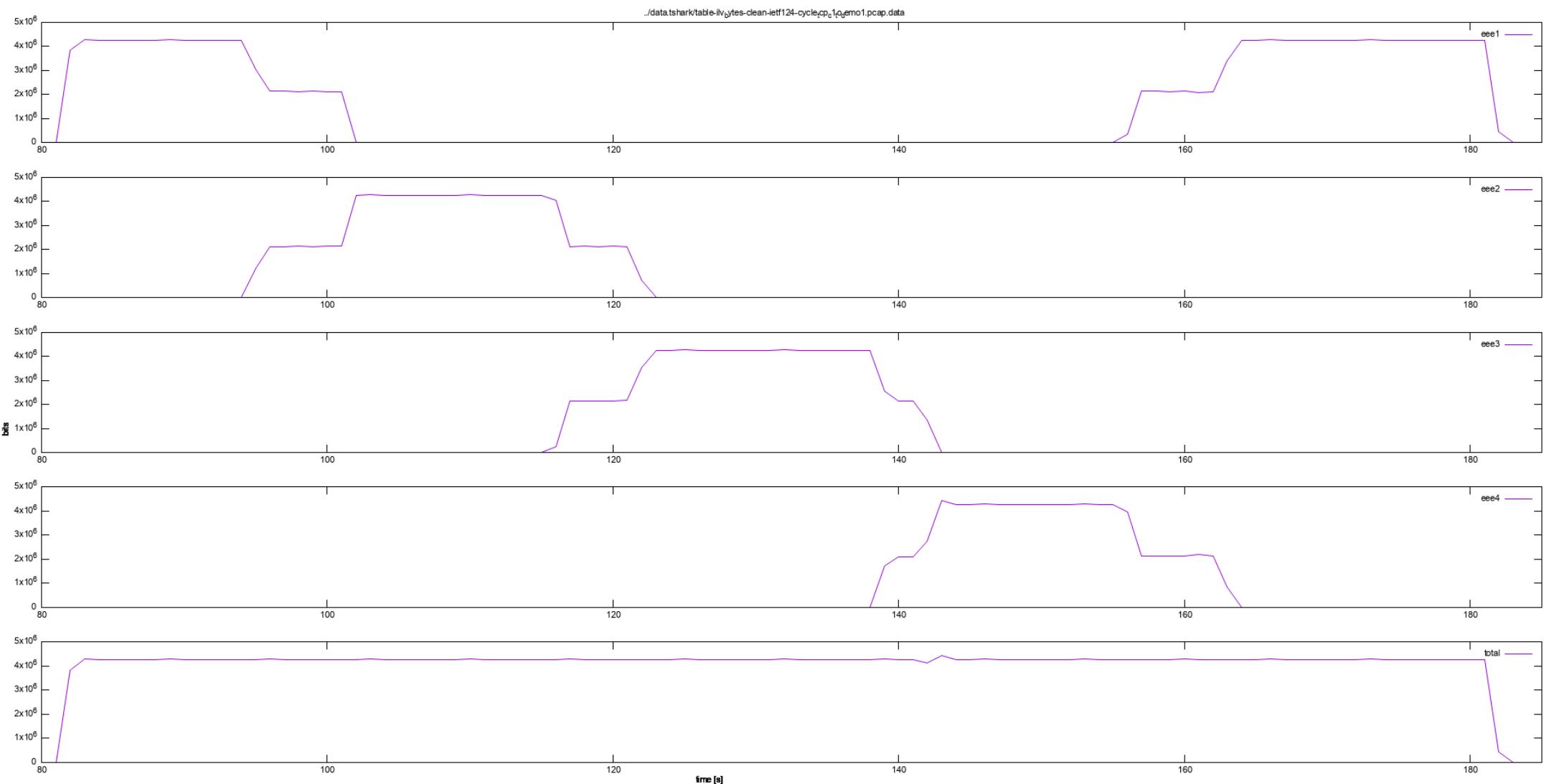
- Dynamic path changes and multipath testing:
  - Client adds/removes paths (Locators), dynamically, for multipath TCP and UDP flows, standard *iperf3* binary.
- **DASH streaming over TCP with multipath:**
  - HTTPS / TCP CUBIC / ILNP.
  - Standard nginx binary and Firefox binary on FreeBSD 14.
- **Updating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

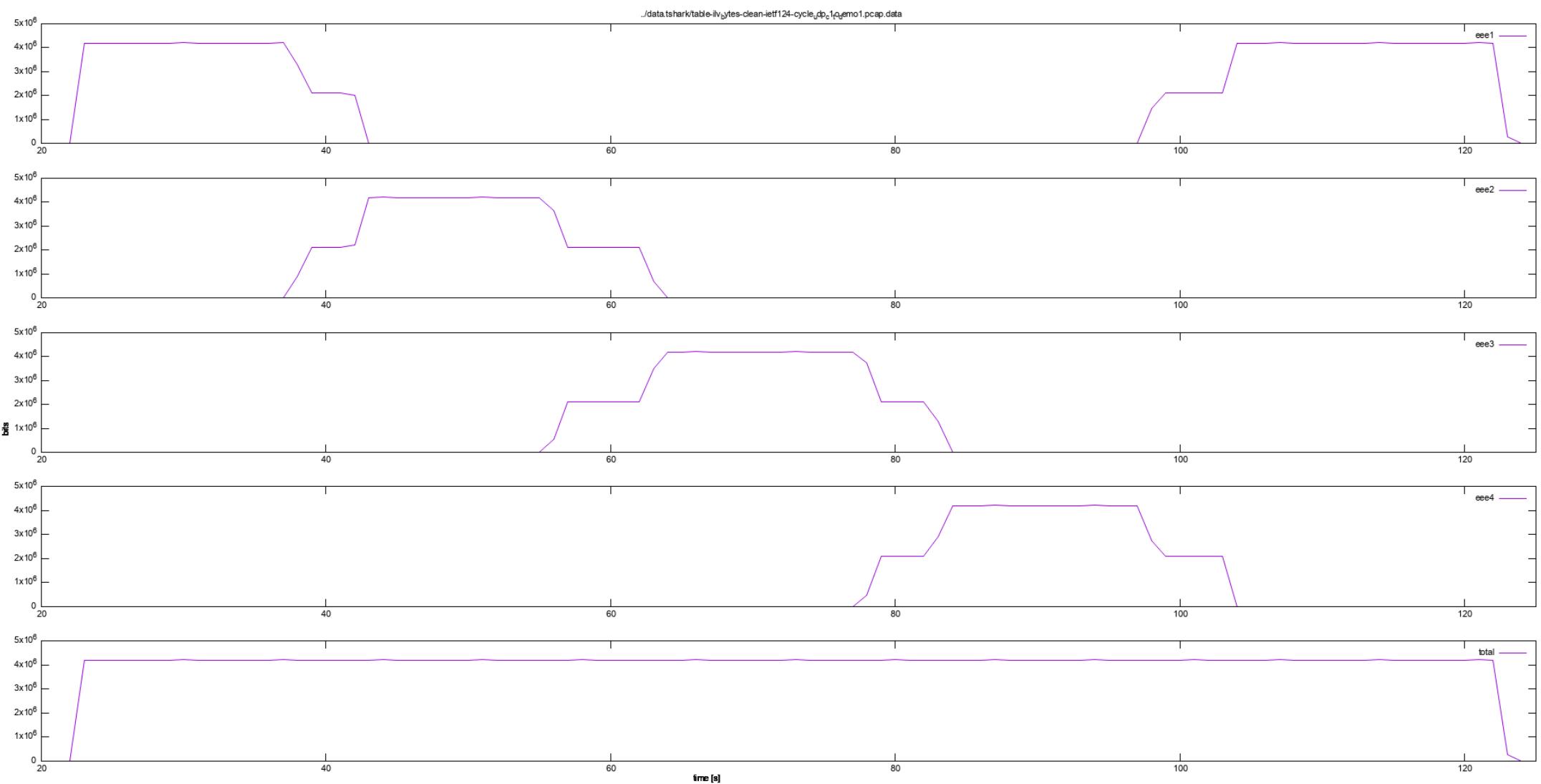
# Network configuration

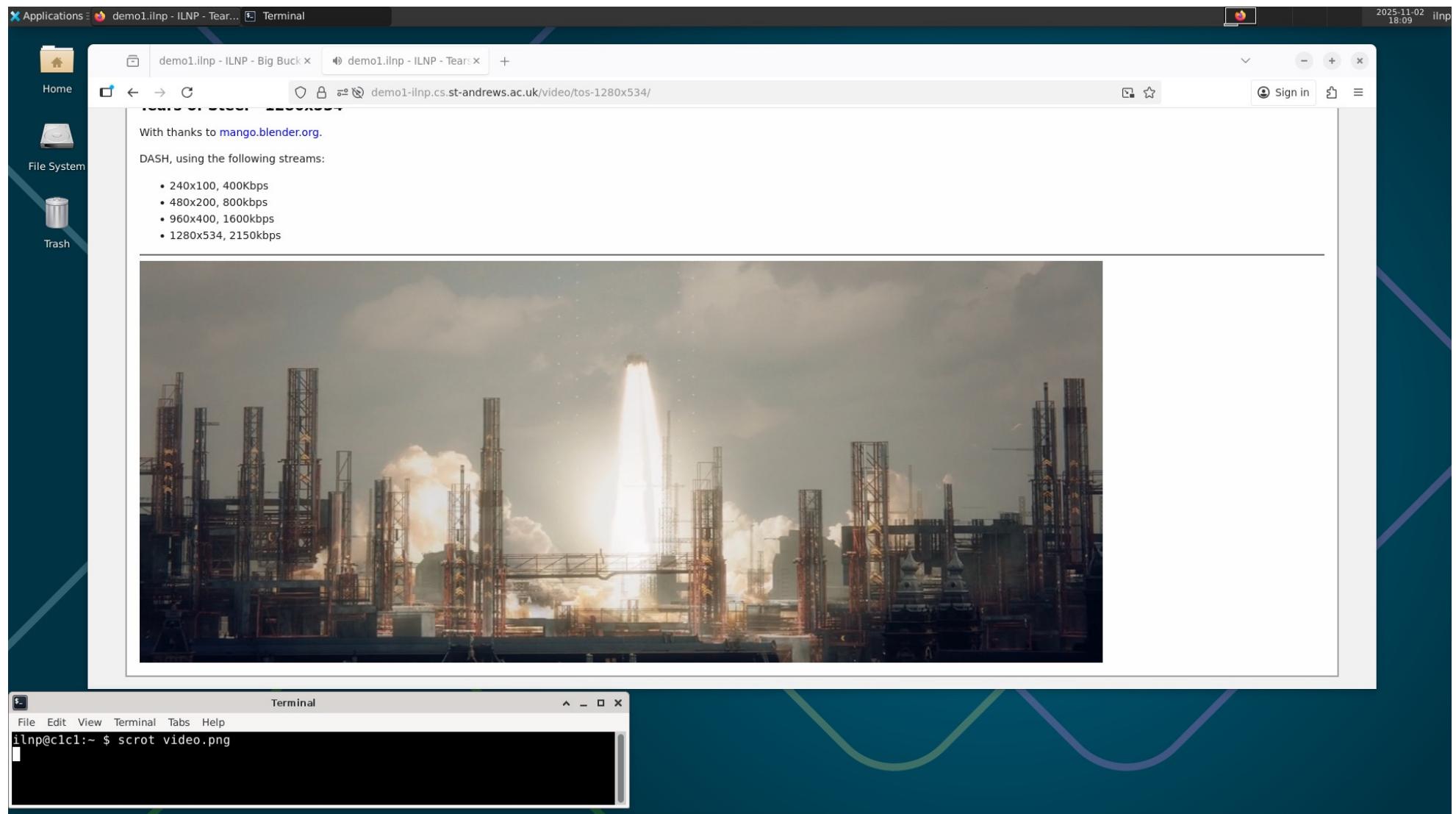


2001:670:1232:**eee1**::c1c1/64  
2001:670:1232:**eee2**::c1c1/64  
2001:670:1232:**eee3**::c1c1/64  
2001:670:1232:**eee4**::c1c1/65









# 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/>

