

## Bringing new features for HTTP multimedia streaming

Streaming technologies are rapidly evolving and new functionalities are tested and introduced every year to efficiently support and deliver multimedia streaming over HTTP in a web context.

Among the most recent advances in HTTP multimedia streaming the Internet Media Group is interested in:

- [WebRTC](#) as a protocol for media ingestion that can substitute the widely used (but old) [RTMP](#) protocol
- [Dynamic insertion of commercials/advertising](#) such that every user receives a personalized feed of promotions that better suits his interests

In this context several commercial platforms exist that can provide multimedia streaming functionalities ([Wowza](#), ...) or dynamic ad insertion ([Adwiz](#)), while others exist that are open source and free to use but advanced sys-adm skills are often required ([Nginx + RTMP](#)).

We are looking for master thesis students interested in studying, implementing, and testing new functionalities on top of existing open source solutions for [HTTP multimedia streaming](#). The activity can be carried out without being physically present on a day-to-day basis at the Politecnico.

Tags: multimedia, streaming, networking

Thesis type: applied research, software development

Additional references:

- [W3C Multi-device Timing Community Group](#)

Requirements:

- Knowledge of C programming
- Familiarity with the Linux operative system and the GNU environment, ability to compile / modify software
- Knowledge of Internet networking
- [optional] Attended the "Elaborazione e trasmissione di informazioni multimediali" (ETIM, Processing and Transmission of Multimedia Signals) or "Internet Streaming" class

If interested, please submit your CV and statement of interest to: [antonio.servetti@polito.it](mailto:antonio.servetti@polito.it)