BGPlay.js

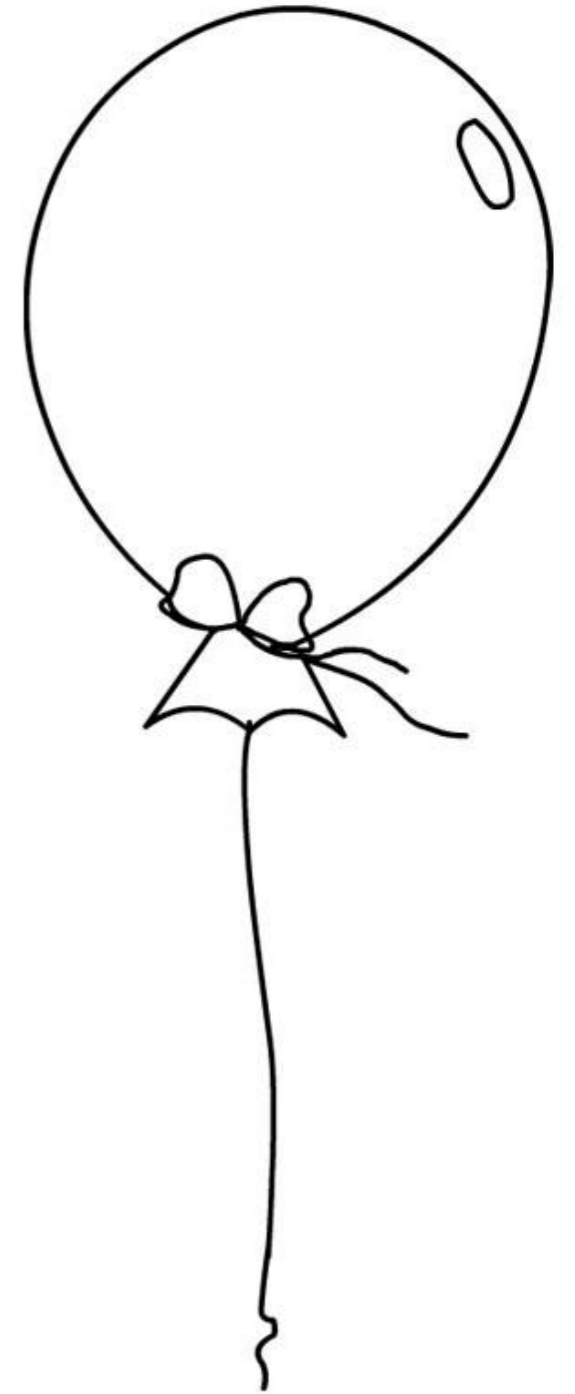**Massimo Candela** – Roma Tre University

The dear old BGPlay

- BGPlay was created by the Computer Networks Research Group at Roma Tre University in 2004

- It was a Java applet for the visualization of animated and interactive graphs of the routing activity related to an Internet prefix
  - Hosted for 5 years by RIPE NCC
  - Currently used in the Route View Project (Oregon University)

- Other tools:
  - BGPlay Island
  - BGPath
  - iBGPlay
  - Historical BGPlay

The dear old BGPlay

What's new: BGPlay.js

BGPlay.js is the new web-app improving the key features of BGPlay and introducing many new ones

Integrated as a RIPEstat widget!

BGPlay.js live demos

- ## Legend explanation:
  - https://stat.ripe.net/widget/bgplay#w.resource=193.0.0.0/21&w.ignoreReannouncements=true&w.starttime=1368419088&w.endtime=1368534288&w.instant=null&w.type=bgp&w.rrcs=0,1,6,7,11,13,15,3,4,5,10,12,14

- ## Syria blackout (7-8 May):
  - https://stat.ripe.net/widget/bgplay#w.resource=185.4.84.0/22&w.ignoreReannouncements=true&w.starttime=1367942097&w.endtime=1368028497&w.rrcs=0,1,3,4,5,6,7,10,11,12,13,14,15&w.instant=null&w.type=bgp

- ## Syria blackout (15 May):
  - https://stat.ripe.net/widget/bgplay#w.resource=95.212.144/20&w.ignoreReannouncements=true&w.starttime=1368594000&w.endtime=1368660803&w.instant=null&w.type=bgp&w.rrcs=0
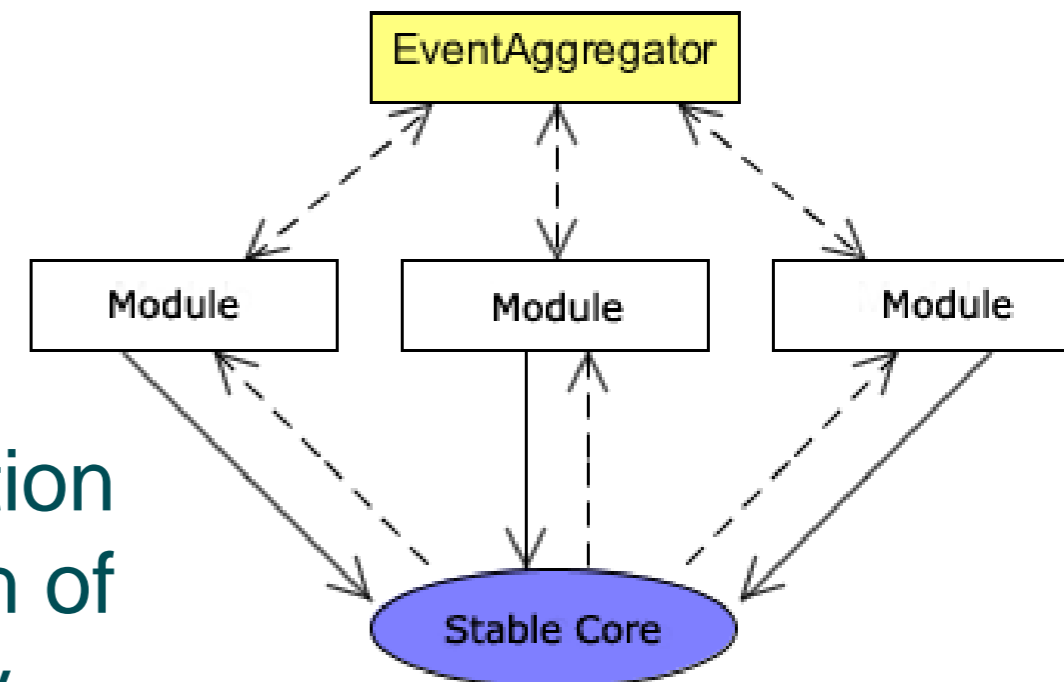
Our goals

- A long-lasting framework which simplifies the creation of new tools for the representation of evolving networking data

- No specific external dependencies

- Usable also from mobile devices

- No specific data-set, no complex server-side computation

A long-lasting framework

- Completely client-side

- Pure JavaScript

- Based on a stable core composed of nodes, paths and properties of these elements.

- The functionalities and the representation are provided by a set of modules, each of which completely isolated operating by means of events on an event aggregator
  - No one of the modules is needed
  - Each module deals with a specific function

BGPlay.js is the first tool (a set of modules) implemented with our framework

BGPlay.js common questions

- Is BGPlay.js open source? Yes

    – Get the code: https://github.com/compunet/BGPlay.js

- Can I visualize my data with BGPlay.js? Yes

    – You don't need server-side computation

    – You can adapt your data to our JSON format, or..

    – You can use your format and adapt it with a client side wrapper

- Can I implement other visualizations/features? Yes

    – Implement your module as a Backbone.js View

    – Declare your module in modules.js

RIPE

BGPlay.js common questions

- Can I embed a BGPlay.js graph into my blog? Yes
  - Just copy and past the embedding code like the other RIPEstat widgets
  - A set of parameters allows you to specify additional settings, like the initial layout, the initial instant, the possibility to prevent new queries and much more

- For more info: http://bgplayjs.com (coming soon)