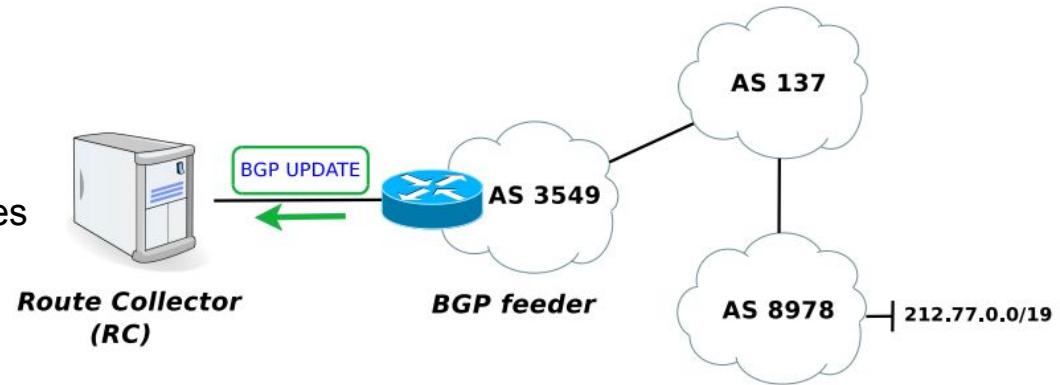


# ***MRT Data Analysis and Elaboration***

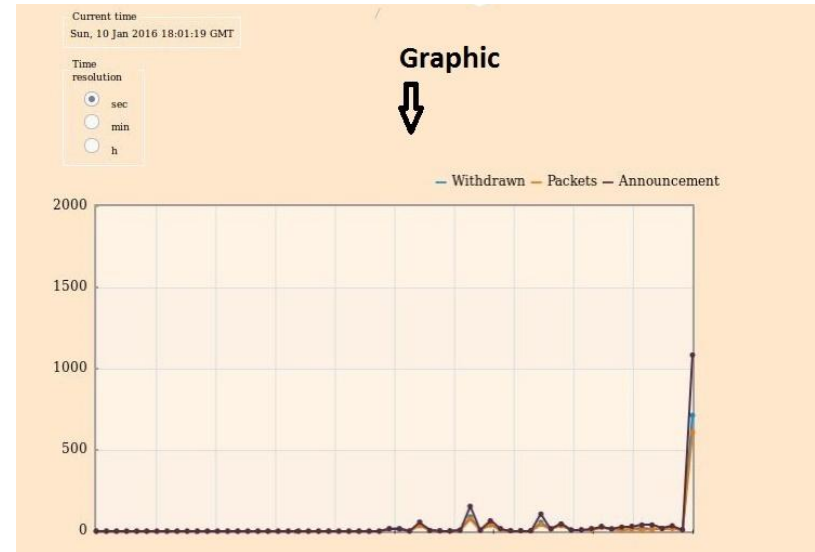
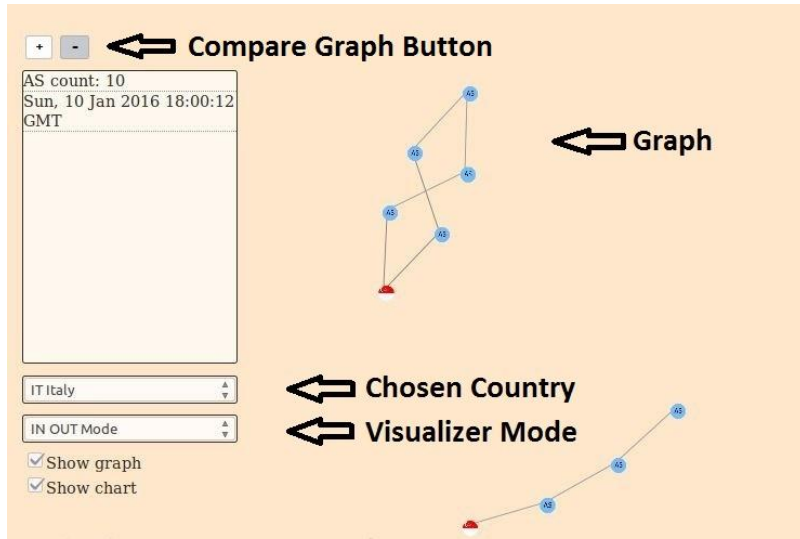


# Route Collecting projects

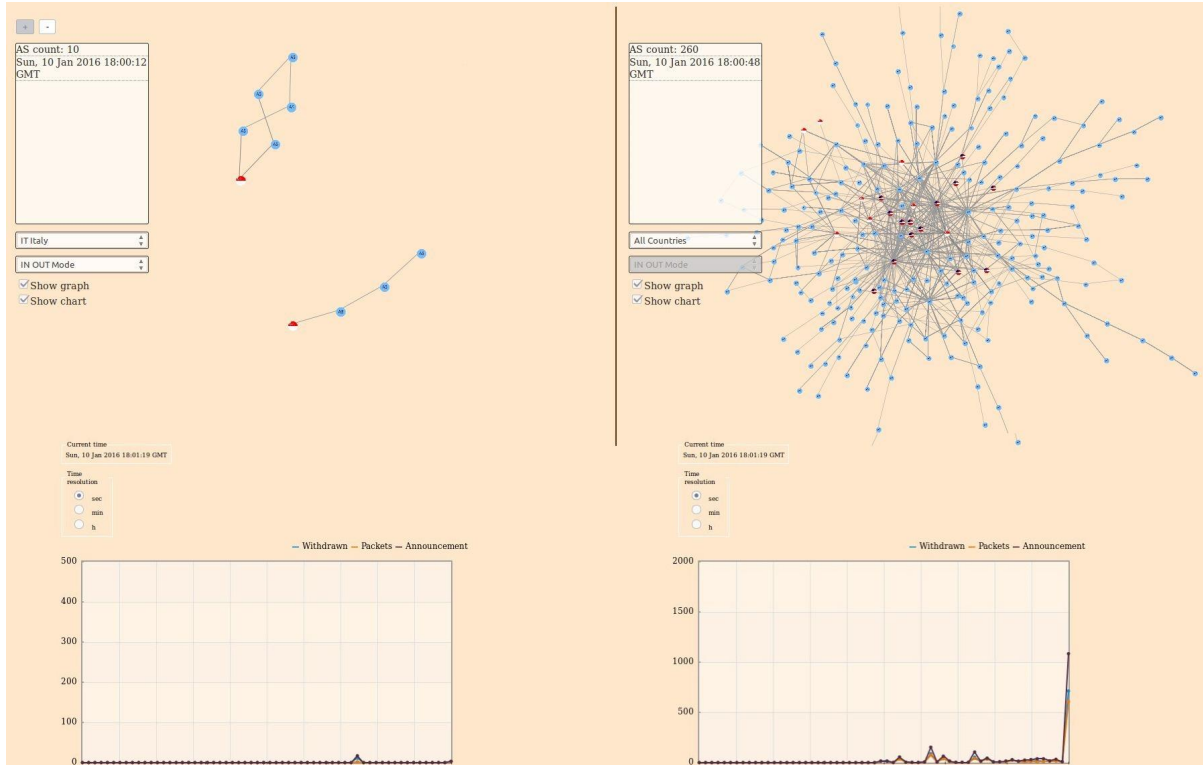
- ❑ Reachability issue
- ❑ AS - feeders
- ❑ Route Collector devices
  - ❑ mimic BGP routers
  - ❑ gathering BGP Update messages
- ❑ Data Collected
  - ❑ MRT format
  - ❑ periodically dumped
- ❑ RIS, Route Views, Isolatio etc..



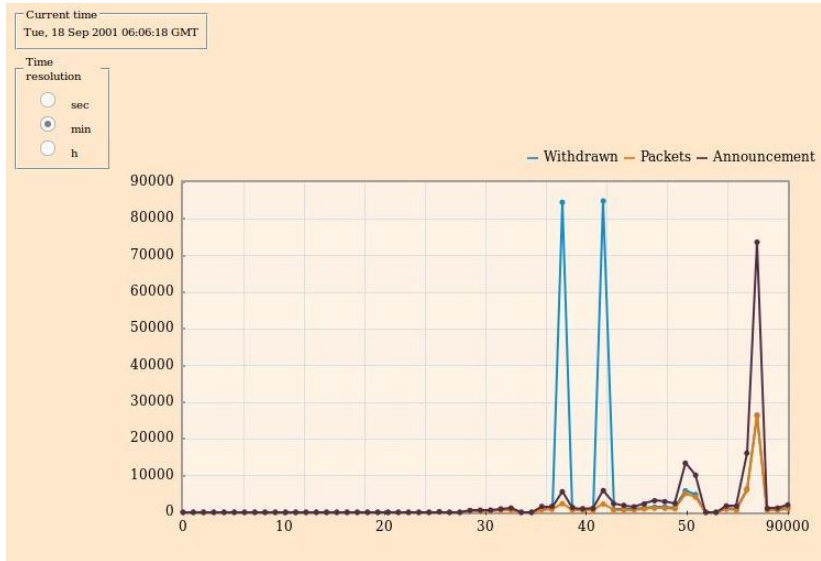
# Objectives



# Objectives



# Extra



# Implementation

- ❑ BGP Protocol for Internet Topology
- ❑ MRT Data format
- ❑ MRT Engine at Server Side
  - ❑ downloads and analyzes MRT Data to create stream to clients
  - ❑ message as unit of the stream
  - ❑ message format & Geolocalization
- ❑ Topology Visualizer at Client Side
  - ❑ AS PATH field to create graph

IP From	Withdrawn Routes	Announced Routes	AS Path	AS From	Timestamp
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Geolocalized



# Implementation

- ❑ Main Thread creates 3 Downloader Thread and FlowCreate Thread
- ❑ Downloader Thread
  - ❑ downloads MRT Data
  - ❑ cURL library
- ❑ FlowCreate Thread
  - ❑ creates Sender Thread
  - ❑ creates ordered queue of BGP entries
  - ❑ MRT Data Reader & Geolocator libs
- ❑ Sender Thread
  - ❑ creates enhanced stream with geo info
  - ❑ WebSocketpp library

