

RIPE



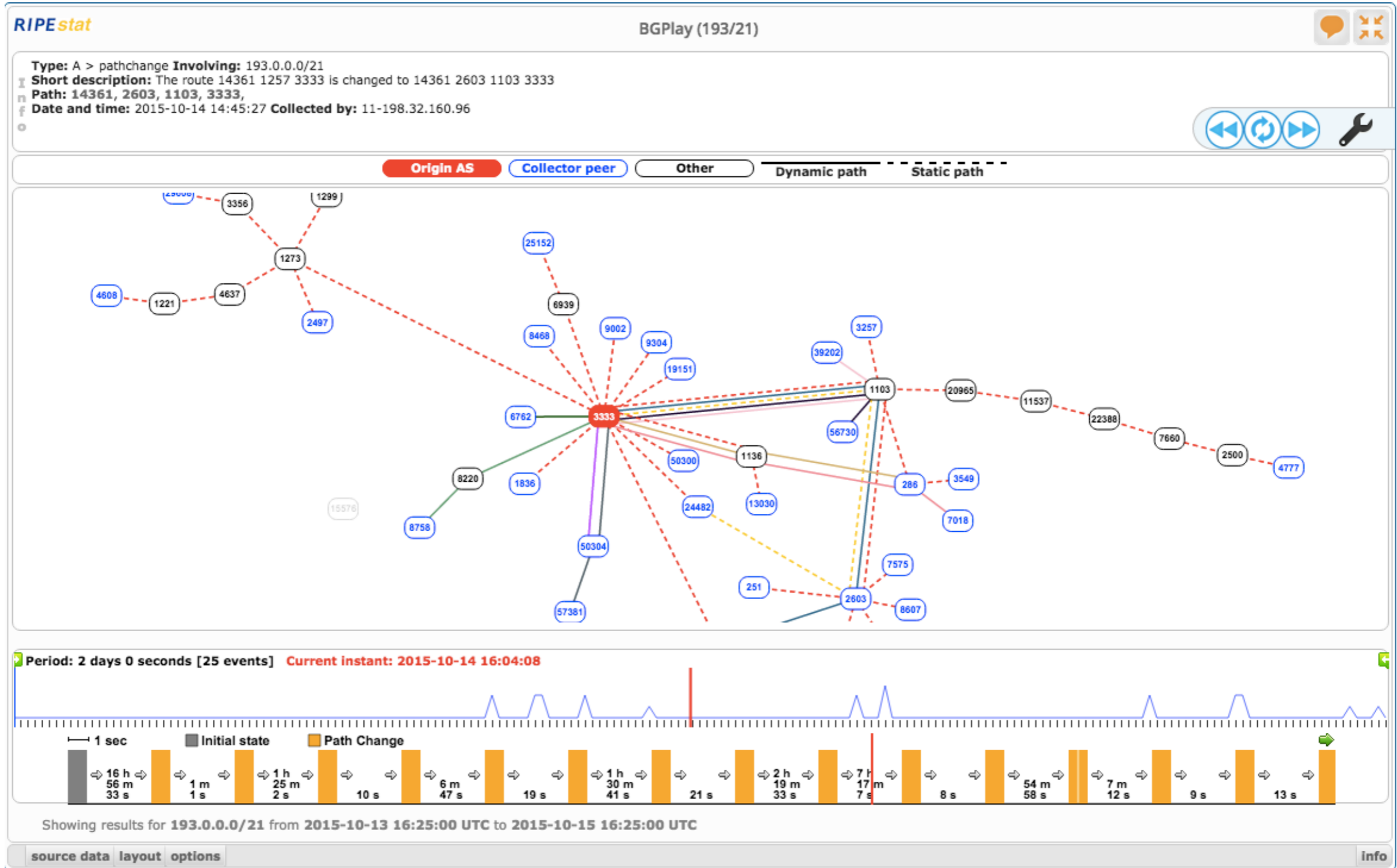
Real-time BGP Monitoring with BGPlay

Massimo Candela
Science Division
RIPE NCC

mcandela@ripe.net



BGPlay



Computer Network Research Group of Roma Tre and RIPE NCC



BGPlay

- Data comes from BGP data collection projects
 - E.g. RIPE NCC Routing Information Service (RIS) or University of Oregon Route Views
- BGPlay is useful to:
 - Analyse past BGP events
 - Verify BGP configurations

Operators need to understand and respond quickly to ongoing BGP issues

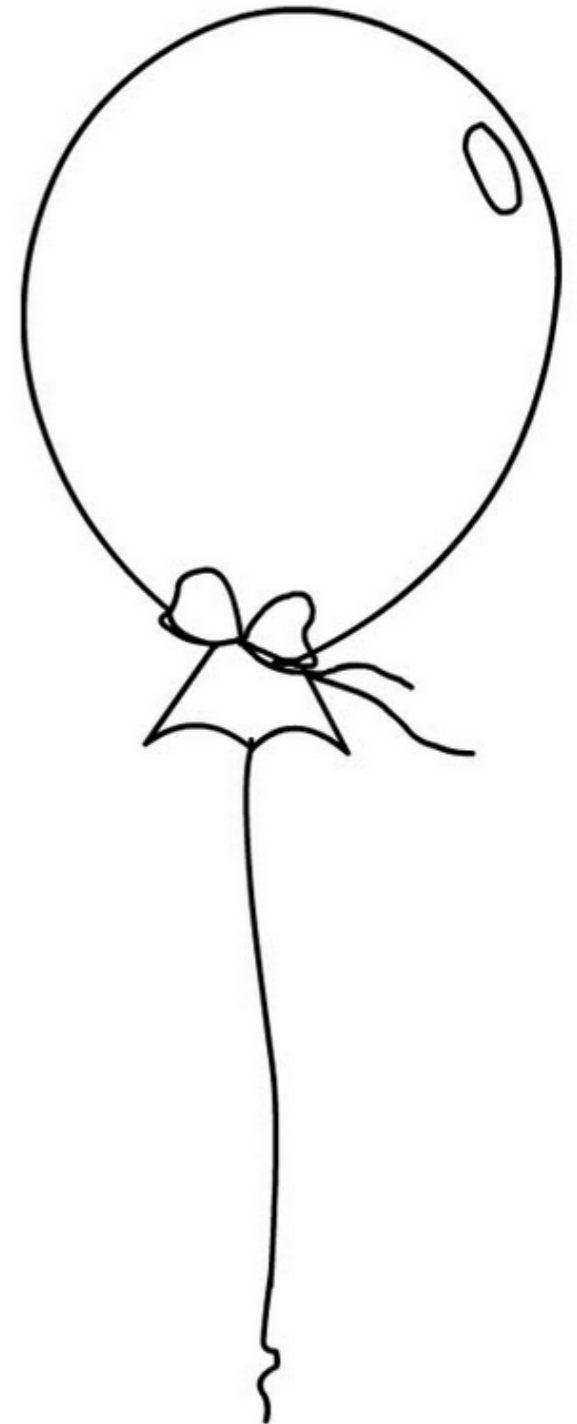


Real-Time BGP data collection projects

- BGP data collection projects are moving more and more towards (near) real-time solutions
 - New Routing Information Service - RIPE NCC (ris.ripe.net)
 - Isolario - Italian National Research Council (isolario.it)
 - BGPstream - CAIDA (bgpstream.caida.org)
 - BGPmon - Colorado State University (www.bgpmon.io)

New: BGPlay Real-Time

- The BGP graph is updated as soon as a new BGP message is received
 - Based on WebSocket (RFC 6455)
 - In browser, no third-party plug-ins
 - Easily adaptable to the various data collection projects
- Integrated in:
 - Isolario
 - BGPstream (CAIDA) - ongoing
 - RIPEstat - ongoing

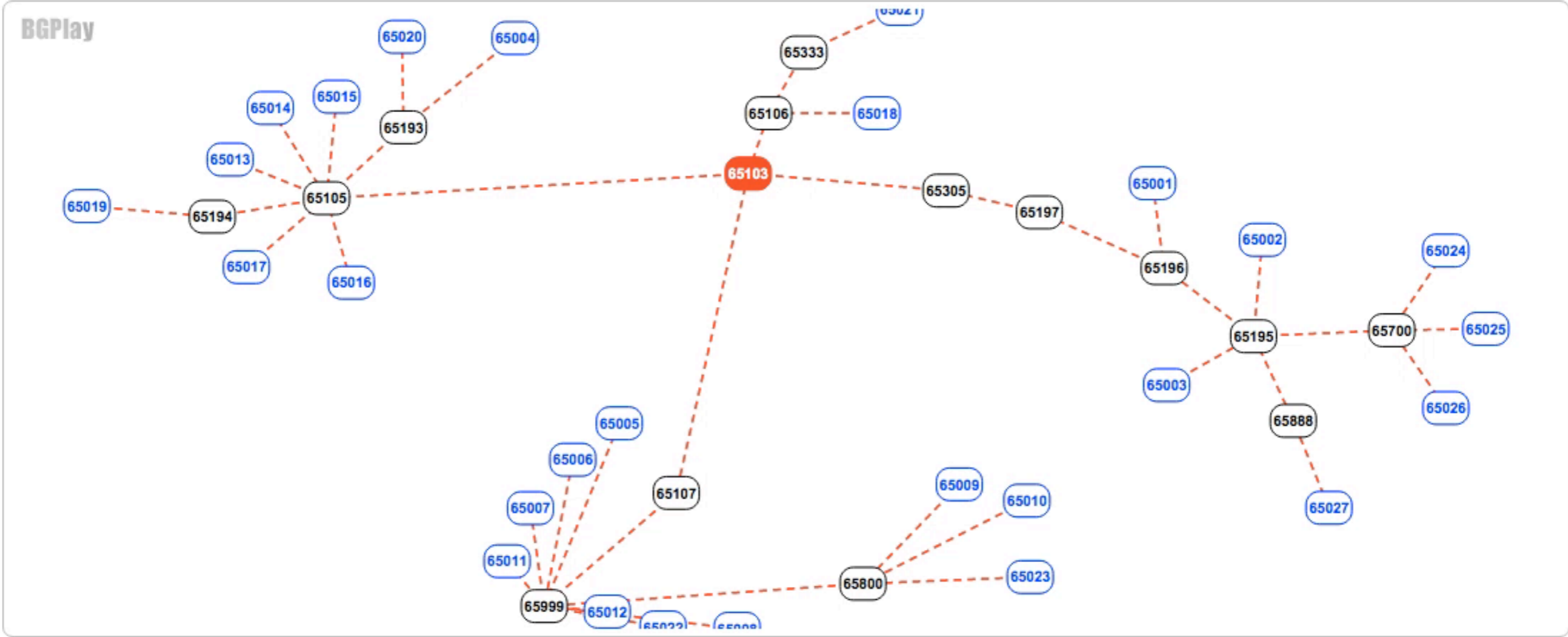


Simulated Hijack

Type: Initial state
Number of ASes: 42
Number of collector peers: 27
Selected RRCs: 0,1,3,4,5,6,7,10,11,12,13,14,15
Total number of events: 0
Date and time: 2015-09-26 20:51:33



Origin AS Collector peer Other Dynamic path Static path



[layout](#) [options](#) [About BGPlay](#)



Live Demo

- Take one of the most active prefix this week according to bgpupdates.potaroo.net
 - <http://bgpupdates.potaroo.net/instability/bgpupd.html>
- Monitor the selected prefix with BGPlay
 - Log-in as guest in <https://isolario.it/>
 - Go in “Real-time services” > “Subnet Reachability”
 - Enjoy!

Resources and Feedback

- Open-source, available on GitHub
 - <https://github.com/MaxCam/BGPlay>
 - Use your data
 - Embed it in your page
- Documentation
 - <http://bgplay.massimocandela.com>
- Do you want to collaborate? Do you have feedback?
 - mcandela@ripe.net

Questions?



mcandela@ripe.net

