from BGPlay to iBGPlay

graphical inspection of your routing data

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BGPlay

• available as RIS tool since 2004
• graphically shows RIS data
• shows
  – for a certain prefix
  – incoming traffic paths from RIS collector peers
BGPlay

- about 200 queries per day
  - peaks of 500 queries
- slowly increasing
  - linear fit
- the most used RIS query service after the looking glass service
iBGPlay

• graphically shows data from your BGP routers
• similar to BGPlay
  – ... but different semantics
• shows
  – for selected prefixes...
  – ...outgoing traffic paths form your routers to the prefixes
iBGPlay architecture

ISP

iBGPlay client
java application
(or applet)

bgp routers
ibgp sessions
rr-client

route collector
raw routing data
retriever

iBGPlay server

BGP events DB
iBGPlay

• live demo...
The diagram illustrates the iBGPlay query form, which allows users to visualize BGP updates. Here are the key features:

- **Start of the time interval to inspect**
- **End of the time interval**
- **Select one of your routers**
- **You can aggregate your next-hop IP to show IXP**
- **Performs a regular query**
- **Starts a continuous “real time” monitoring**
- **Prefixes behaving the same are shown as if they would be one (to simplify visualization)**
- **The list of prefixes to be visualized**
- **Edit or save the list, or open a previously saved list**

The form includes fields for specifying start and end dates, time zones, and routers, as well as options for loading and saving data.
iBGPlay prefix list editing

- **Selected prefixes**
- **AS origin**
- **Name of the AS origin**
- **Description of the AS origin**
- **User annotations (in-place editing)**

**Insert a prefix directly**
**Query for all ASes whose description match**
**Query for prefixes related to an hostname**
**Query for prefixes having a certain next-hop in the last RIB**
**Query for prefixes originated by a certain AS**
**Query for prefixes announced to us by a certain AS directly**
iBGPlay regular view

- Stable paths (dashed)
- Unstable paths (solid), colors disambiguate
- BGP event details
- VCR-like buttons
- Your router
- Next-hop
- IXP aggregation
- Events density: magenta: routing events, green: re-announcements
- End time
- Start time
- Past
- Future
- Blue Ases contain selected prefix

iBGPlay dashboard view

- always the last routing status in the DB is shown
- updated every 30 seconds (configurable)
- currently, data are loaded into the DB every 15 minutes
- can be shortened to 2-3 minutes with current technology
- true real time is expected in 1 or 2 years
- no vcr-like control
- only the extent of the past interval shown can be changed
- you can switch to the regular interactive view at any time

Currently, data are loaded into the DB every 15 minutes. This can be shortened to 2-3 minutes with current technology. True real time is expected in 1 or 2 years. No vcr-like control is available; only the extent of the past interval shown can be changed. You can switch to the regular interactive view at any time.
iBGPlay and the RIPE community

• our intent is to make iBGPlay a valuable tool for an ISP
  – not a beta test program: software can be considered **stable**
  – frequent releases where changes are mainly on features

• our current partners...
  – 1 IXPs
  – 2 European scientific research networks
  – 2 ISPs
collaboration

• option 1
  – set up an ibgp peering with us
  – data are collected and stored by us
  – you get the iBGPlay client to view your data

• option 2
  – provide a linux box
  – we install all the software remotely
  – setup peerings with that box
  – data are stored at the ISP's place

• even more interesting collaboration forms
  – 2 or more ISPs may agree on exchanging data
  – IXPs can offer it as a service for their members
future works

• make BGP data exchange between ISPs easy
• OSPF and MPLS visualization
  – looking for collaborations!
• visual comparison of the routing of many BGP routers
• summary visualization of whole address space vs. BGP peers vs. routers
• make data available with sub-minute delay
are you interested?

• contact us by email
  – ibgplay@dia.uniroma3.it

• ...or better contact me here!

Questions?