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## RIPE Atlas BoF



#### Help us Distribute More Probes

- Become RIPE Atlas ambassador
  - if you travel to exotic locations and/or conferences
  - if you have lots of friends
  - if you can persuade people to plug in their probe
- What do you have to do?
  - register the email & MAC address of hosts
  - remind people to plug in their probe
- What's in it for you?
  - fame & glory... warm fuzzy feeling... and a T-shirt :-)



## If YOU Want more probes...

- Become a sponsor!
  - if you want to give probes to your customers/members
  - if you want to control multiple probes yourself
- What do you have to do
  - pay us 2048 Euro for 8 probes
  - let us know the emails & MAC addresses per probe
- What's in it for you?
  - earn double\* credits
  - your probes visible in your admin interface
  - fame & glory & place of your logo on our web site.. & a T-shirt :-)



## http://roadmap.ripe.net/ripe-atlas/

#### Requested

- Add NLNOG RING nodes as measurement targets
- Automatic alarms
- Involve each probe in anchoring measurements
- Replace unsuitable probes
  - Vantage points dropping out
- of existing user-defined measurements
- Share my probe with a custom-made group
- Improve reporting when probe disconnects
- More controls for measurement distribution
- Credits APIs

#### Planned

- Sharing credit management with colleagues
- More visualisations for user-defined measurements
- Release measurement source code

#### In Progress

- > Tools for interpreting results
- RIPE Atlas anchors pilot phase two
- Improving back-end infrastructure
- List of available RIPE Atlas anchors
- Quick-Look connectivity measurements

#### **Delivered**

- API keys
- Improved credit model
- documentation and accounting
- Membership specific services via LIR Portal
- RIPE Atlas anchors as measurement targets
- Improved bug documentation
- Measurements on GitHub
- One-off measurements
- Allowed creation of measurements using API
- Improved RIPE Atlas website
- Sharing probe management with colleagues
- Increase maximum number
  of probes and
  measurements



#### Questions for the BoF participants

- About features:
  - HTTP measurements limitations?
  - -BCP38 detection? spoofing packets
  - How many probes do you want to see in three years?
  - Multipath TCP measurements?
  - Granularity of group management?
    - "RIPE Atlas" group in LIR portal: opt-in or opt-out?
  - Which of the requested features are most important?



## Which use cases should we prioritize?

- How much traffic stays local to country/region?
- Net Neutrality measurements?
- Measuring IP address hijacking?
- SSL observatory?
- Peering optimizer?
  - combining RIS (BGP) & active measurements data



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## RIPE Atlas Anchors



#### RIPE Atlas Anchors

- Anchors are well-known targets and powerful probes
- Regional baseline & "future history"
- Features:
- RIPE Atlas users can chose anchors as targets
  - Anchors are running http & DNS server SW

Target:

Public:

Description:

Resolve on probe:

Create RRD graphs:

- RIPE Atlas users can use anchors as big probes
- Anchor hosts earn ten times more credits than regular probe hosts



Anchor: at-vie-as1853

Anchor: ch-zrh-as34288

Anchor: cz-prg-as25192

Anchor: fi-tmp-as29432

Anchor: fr-cdg-as2486 Anchor: ie-dub-as2128

Anchor: nl-ams-as3333

Anchor: no-osl-as39029

Anchor: sk-bts-as2607

Anchor: us-bos-as11488

Vienna, AT

Zurich, CH

Prague, CZ

Tampere, FI Paris, FR

Dublin, IE

Oslo, NO

Amsterdam, NL

Bratislava, SK

Boston, US

#### 11 Pilot RIPE Atlas Anchors

Boston

Public Probes	
Description	Location
AA nl-ams-as3333	Amsterdam, The Netherlands
AA no-osl-as39029	Oslo
AA fi-tmp-as29432	Tampere
AA fr-cdg-as2486	Paris
AA ch-zrh-as34288	Zurich
AA cz-prg-as25192	Prague
AA ie-dub-as2128	Dublin
AA sk-bts-as2607	Bratislava
AA at-vie-as1853	Vienna

AA us-bos-as11488





#### RIPE Atlas Anchors Planning

- Pilot phase one: September 2012 June 2013
  - 11 anchors deployed
  - After research, decided on multiple services based on Open VZ
- Pilot phase two: July September 2013
  - Ten more anchors to be deployed
  - Testing the timing aspect of multiple services
- Production service: Q4 2013
  - -Goal: ~50 deployed in 2013
  - Features: anchoring measurements, packet capturing SW on anchors, lists and visualisations of anchors, used for DNSMON "powered by RIPE Atlas"



#### Questions for anchor hosts

- What shall we filter out from packet capturing?
- Shall target & probe functionality be on same IP?
- How many anchors do you want to see in three years?
- If the virtualization tests confirm multiple services possibility, which services?
  - K-root instance, RIS route collector, whois DB/RR?
  - Shall target & probe functionality be on same VM?



