BGPbotz
IM-based route view bot

Manish Karir, Eric Wustrow
Merit Networks, Inc.
Route Views

- Generally web or telnet based
- Provides a looking-glass for BGP from different vantage points (routers)

route-server.he.net> sh ip bgp 35.0.0.0
BGP routing table entry for 35.0.0.0/8
Paths: (23 available, best #13, table Default-IP-Routing-Table)
  Not advertised to any peer
  237, (aggregated by 237 198.108.93.41)
    206.223.119.39 from 216.218.252.180 (216.218.252.168)
      Origin IGP, metric 20, localpref 47, valid, internal
    Last update: Fri Aug 28 09:44:50 2009
Disadvantages

- Have to remember telnet/web address, eg:
  - route-server.ip.att.net
  - route-views.ab.bb.telus.com
- “More” text in your console:

  Originator: 216.218.252.168, Cluster list: 216.218.252.148
  Last update: Fri Aug 28 09:44:50 2009

  237, (aggregated by 237 198.108.93.41)
  206.223.119.39 from 216.218.252.167 (216.218.252.168)
  Origin IGP, metric 60, localpref 100, valid, internal
  Originator: 216.218.252.168, Cluster list: 216.218.252.167
  Last update: Fri Aug 28 09:44:50 2009

  --More--
BGPbotz

(03:35:18 PM) **l33tosaurus**: sh ip bgp 35.0.0.0
(03:35:18 PM) **bgpbotz**: show ip bgp 35.0.0.0

BGP routing table entry for 35.0.0.0/8
Paths: (1 available, best #1, table Default-IP-Routing-Table)
  Not advertised to any peer
  {65040}, (aggregated by 237 198.108.93.34)
  198.108.93.62 from 198.108.63.41 (198.108.63.41)
  Origin IGP, localpref 100, valid, internal, best
BGPbotz

• Links for long results:

(03:40:42 PM) l33tosaurus: show ip bgp
(03:40:51 PM) bgpbotz: show ip bgp

BGP table version is 0, local router ID is 198.108.62.154
Status codes: s suppressed, d damped, h history, * valid, > best, i - internal,
r RIB-failure, S Stale, R Removed
Origin codes: i - IGP, e - EGP, ? - incomplete

<table>
<thead>
<tr>
<th>Network</th>
<th>Next Hop</th>
<th>Metric</th>
<th>LocPrf</th>
<th>Weight</th>
<th>Path</th>
</tr>
</thead>
<tbody>
<tr>
<td>*&gt;i0.0.0.0</td>
<td>198.108.93.55</td>
<td>110</td>
<td>0</td>
<td>7018</td>
<td>i</td>
</tr>
<tr>
<td>*&gt;i3.0.0.0</td>
<td>198.108.93.55</td>
<td>331</td>
<td>110</td>
<td>0</td>
<td>2914 9304 80 i</td>
</tr>
<tr>
<td>*&gt;i3.51.92.0/23</td>
<td>198.108.93.55</td>
<td>110</td>
<td>0</td>
<td>7018</td>
<td>?</td>
</tr>
<tr>
<td>*&gt;i4.0.0.0</td>
<td>198.108.93.55</td>
<td>100</td>
<td>0</td>
<td>7018</td>
<td>3356 i</td>
</tr>
<tr>
<td>*&gt;i4.0.0.0/9</td>
<td>198.108.93.55</td>
<td>100</td>
<td>0</td>
<td>7018</td>
<td>3356 i</td>
</tr>
<tr>
<td>*&gt;i4.21.103.0/24</td>
<td>198.108.93.41</td>
<td>279</td>
<td>110</td>
<td>0</td>
<td>11537 3549 46133 i</td>
</tr>
</tbody>
</table>

***TRUNCATED***

http://bgpbotz.merit.edu/t6kb1vh8
Commands

- show ip bgp
- show bgp view (router) ipv6
- ping
- traceroute
- aslookup
- whois
- grep
Architecture

- Python
- Chat protocols: AIM, Jabber(XMPP)
- Single thread per user
- Interface to vtysh

```
aim_bgp.py
jabber_bgp.py
bgpbotz.py
```
Results

- 400+ screen names from both protocols
Results

- >6000 messages sent, 3400+ “useful” queries
BGPbotz

• Talk to BGPbotz
  • AIM: bgpbotz
  • Jabber: bgpbotz@jabber.research.merit.edu
• Source available; Run your own!
  • http://bgpbotz.merit.edu
• Currently 4 views available (2 non-Merit)
  • RS-SWITCH (v4/v6, Switzerland)
  • RS-IBCTECH (v6)
  • RS-YOUR_ISP_HERE