IAB Routing Workshop Constraints

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Constraints

- Routing system must scale
- Business cases require TE
- Complete separation of locator and identifier
- Security
- Backwards compatibility

Constraints

- Routing system must scale
  - Function of DFZ Internet routing table
  - Function of internal routes
  - Function of 2547 VRF routes
  - Hardware upgrade treadmill
  - Can hardware keep up at a reasonable cost
    - FIB scaling becomes non linear
    - 5 year depreciation cycle
    - 2 year certification / deployment cycle
  - If Tier 1 ISPs melt down, other people inherit the problem
  - Health of the Internet

Constraints

- Business cases require TE
  - Apparently hard to define
    - Capacity planning is place circuits where the traffic is
    - TE is pushing traffic where capacity is
    - TE is pushing specific traffic on specific links as required by policy / business constraints
  - End site TE
  - Small ISP to transit provider TE
    - Need locator mapping available to transit routers
  - Large ISP TE
    - Need locator mapping available to transit routers

Constraints

- Complete separation of locator and identifier

Constraints

- Security
  - Don't make securing the routing system any worse
  - Can we also make is more difficult to inject false routing information
  - Can we make it easier to filter DoS traffic
    - Id transparent to transit routers
      - Unlike NAT / proxies

Constraints

- Backwards compatibility
  - Should we constrain solution space to be backwards compatible?
  - Find the right solution
    - See if it can easily be made backwards compatible
    - See what trade offs we lose for backwards compatible