Addresses, Names, Routes, ….

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In the Beginning

- Addresses were global and stable
- Names were unique
- Routes were flat
- Routing was dynamic
- Multihoming was simple

After the Garden

- Global addresses were scarce

- Private addresses were common

- Names were not unique

- Routes were aggregated

- Routing was controlled by policy

- Multihoming was difficult and doesn't scale

After the Flood

- IPv6 provides global (ISP based) addresses
- Non-ISP IPv6 addresses are needed
- Names are non-unique
- Routes are aggregated
- Routing is controlled by policy
- Multihoming is difficult and doesn't scale

After the Exodus

- Hosts will have multiple addresses
  - Multihomed nodes and multihomed sites
  - Not all addresses will have same reachability
- Many sites will be multihomed via separate prefixes
- Peer-to-Peer services need non-server based
  - Service discovery
  - Name resolution
  - ….