



# Identifiers, Identities and E2E

Some questions raised in combining  
draft-iab-internet-identities  
and  
draft-iab-e2e-futures

Geoff Huston  
IAB Tuesday Session  
November 2003

# Identities

---

- Identifiers and Identities in an E2E context
  - Identities:
    - IP addr
    - 5-tuple IP session identity
    - DNS names
    - URLs
    - URNs
    - HFS
    - Public / Private Key pair

# Issues with Deviant Identities

---

- IP address have the property of identifier / locator / forwarder overload
- Attempting to constantly update DNS-based identities implies the use of Dynamic DNS and implied performance implications for data retrieval
- URN resolution mechanisms appear to embed a URN back into a URL
  - in what way does explicit resolution compromise the URN identity properties?
- Identity Discovery?
  - Is a structured identity space a necessary prerequisite for identity lookup?

# Issues with Deviant Ends

---

- L3-Mobile and L3-multi-homed ends
- Distributed multi-step ends
- Replicated ends
- Variable ends
- Hidden ends
- Selectively-Hidden ends
- Proxy-assisted ends
- Identity-assurance of ends

# Common Issues

---

- Are the properties of currently well-known identities able to encompass the full range of behaviour and characteristics of ends?
- How are identities being changed to match particular end behaviours and desired end characteristics?
- Is placing crypto inside an identity helpful or not?
- Do we need more identity spaces?
- Altered identity attributes?
- How do NATs alter the picture?
  - Are application-based identities a natural outcome of application level gateways?
- Is this all just a case of placing more RRs in DNS?