Informal Quiz #12: Naming/DNS: SOLUTIONS

Shivkumar Kalyanaraman:
GOOGLE: “Shiv RPI”
shivkuma@ecse.rpi.edu
Naming and DNS (Slide set #13): Informal Quiz: SOLUTIONS
T F

☐  √  A name always refers to a single access point (or network interface)

√  ☐  Name resolution is a special case of a general indirection problem of ID-to-location mapping.

√  ☐  The separation of names from location addresses is attractive in part because the mapping can be deferred and changed.

√  ☐  Name spaces allow flexible structuring of names

√  ☐  The use of DNS, routing/forwarding, ARP is an example of composing naming domains to access a resource given a URL.

☐  √  URLs and URNs allow the integration of name spaces and resolution methods

☐  √  DNS is a distributed database offering strong consistency and atomicity guarantees

☐  √  DNS cannot be used to do the inverse mapping from an IP-address to a name

√  ☐  The DNS name tree is organized as a hierarchy of non-overlapping zones

☐  √  The SRV record type refers only to a name server implementing the represented zone

√  ☐  IPv6 address mappings require a AAAA DNS record.

√  ☐  /etc/hosts is an example of a flat namespace
Naming/DNS

- The two types of resolution methods in DNS are recursive and iterative.
- Caching in DNS is the same as pre-fetching.
- The “dig” program allows the querying of the DNS system.
- DNS maintains strict consistency amongst the cached DNS entries.
- The early X.500 vision is now broken down into a set of layers: DNS, directories and discovery services.
- Discovery services like Jini provide more dynamism and plug-and-play capabilities compared to directories which essentially provide attribute-based searches (yellow-pages).
- ENUM allows telephone numbers to be written DNS-style and helps in the deployment of internet telephony.
- Today’s internet architecture suffers from overloading of ID semantics and subsequent brittleness.
- Advanced naming systems propose further layers of indirections and new IDs for services, entitites etc.
- Mobile IP is actually an example for dynamic/late-binding between an entity ID and a location ID.
- Explicit delegation will allow the integration of middleboxes seamlessly into the Internet architecture.