

# Unicast DNS-SD

# Unicast DNS-SD

- DNS-SD is independent of DNS transport
- Unicast DNS-SD avoids multicast overhead of mDNS
- ...but there are some considerations
  - Scaling responses to service discovery
  - Modifying responses based on, for example, location
  - Accommodating legacy devices

# What are the tools?

- Unicast DNS-SD client configuration RRs
  - lb.\_dns-sd.\_udp.example.com. (Learned from DHCP)
  - lb.\_dns-sd.\_udp.0.1.168.192.in-addr.arpa.
  - lb.\_dns-sd.\_udp.local.
- Hybrid-proxy servers
- Organization DNS server
  - Holds unicast DNS-SD client configuration RRs
  - Holds delegations to hybrid proxy servers
  - Holds subnet in-addr.arpa. entries

# Integrating hybrid-proxies

- Deploy hybrid proxies for zones floor[123].example.com
- Add delegations to organization server to hybrid proxies
- Add in-addr.arpa entries for each link:

lb.\_dns-sd.\_udp.0.1.168.192.in-addr.arpa.

PTR floor1.example.com.

PTR floor2.example.com.

# Integrating hybrid-proxies

- Deploy hybrid proxies for zones floor[123].example.com
- Add delegations to organization server to hybrid proxies
- Add in-addr.arpa entries for each link:

lb.\_dns-sd.\_udp.0.2.168.192.in-addr.arpa.

PTR floor1.example.com.

PTR floor2.example.com.

PTR floor3.example.com.

# Integrating hybrid-proxies

- Deploy hybrid proxies for zones floor[123].example.com
- Add delegations to organization server to hybrid proxies
- Add in-addr.arpa entries for each link:

lb.\_dns-sd.\_udp.0.3.168.192.in-addr.arpa.

PTR floor2.example.com.

PTR floor3.example.com.

# Unicast DNS-SD

- Client on floor1 resolves lb.\_dns-sd.\_udp.0.1.168.192.in-addr.arpa.
- Service discovery for \_ipp printers results in queries:
  - \_ipp.\_tcp.floor1.example.com
  - \_ipp.\_tcp.floor2.example.com
  - \_ipp.\_tcp.local
- Results are merged and leftmost labels are displayed