

Using IPv6 DNS for Renumbering

DHCPv6 - Process

- **Same as in IPv4, but:**

Client first detect the presence of routers on the link.

If found, then examines router advertisements to determine if DHCP can be used.

If no router found or if DHCP can be used, then

**DHCP Solicit message is sent to the All-DHCP-Agents
multicast address**

Using the link-local address as the source address

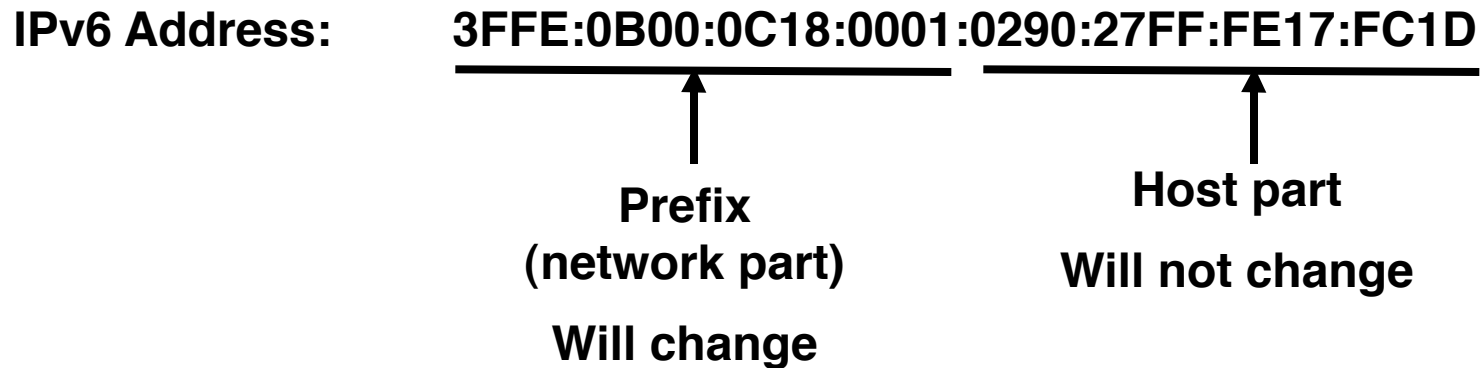
DHCPv6 Multicast Addresses

- **Multicast addresses used:**
 - FF02::1:2 = All DHCP Agents (servers or relays). Link-local scope**
 - FF05::1:3 = All DHCP Servers. Site-local scope.**

IPv6 and DNS

	IPv4	IPv6
Hostname to IP address	A record: www.abc.test. A 192.168.30.1	AAAA record: www.abc.test AAAA 3FFE:B00: C18:1::2 Or A6 record: www.abc.test A6 0 3FFE:B00: C18:1::2
IP address to hostname	PTR record: 1.30.168.192.in-addr.arpa. PTR www.abc.test.	PTR record: 2.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.1.0.0 .0.8.1.c.0.0.0.b.0.e.f.f.3.ip6.arpa PTR www.abc.test.

Renumbering with DNS

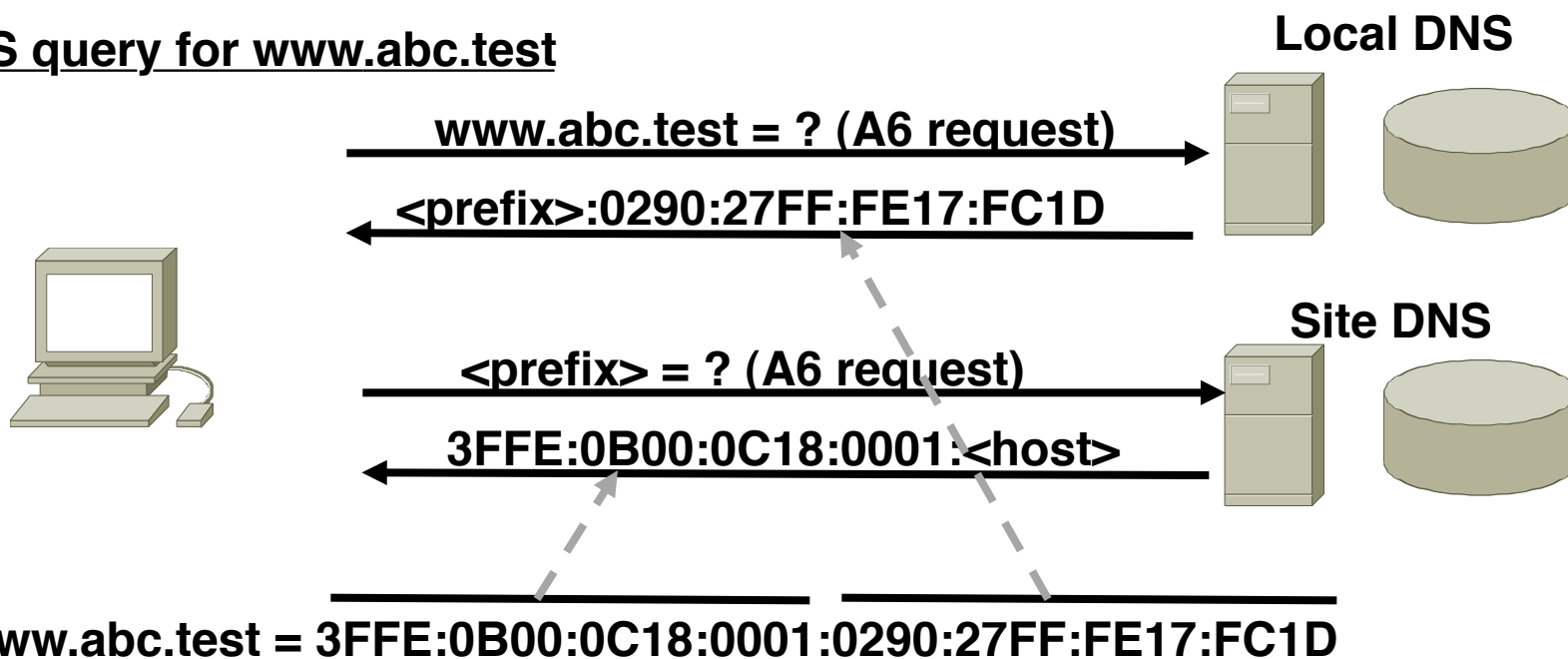


- **Renumbering means:**
 - Only the prefix changes**
 - DNS entries must change**

DNS for Renumbering—A6

Cisco.com

DNS query for www.abc.test



A6 After Renumbering

DNS query for www.abc.test

