

# Re-visitng the /48 boundary

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# Some of the Original Considerations

- In IPv4, default practice is that address usage must be justified
- In IPv6, remove that perception
- Significant departure from IPv4 practices: do not make it difficult to obtain multiple addresses
  - Assumption: networks (not single client) is the norm

# Desirable Traits

- Simple, easy to understand policy for all
- For LIR, make it easy to categorize end sites
  - Avoid having LIRs compete on size of end allocation
- Many choices yields better utilization; too much choice leads to “give largest for simplicity”
- Want operational protocols/practices to support flexibility in end site allocation
  - In IPv4, one address is the standard, more is “exception”

## Desirable Traits (cont.)

- Greatly reduce amount of “justification” from end user to get reasonable amount of address space
- Select boundaries that simplify DNS reverse tree management
  - Note: A6 format has since been deprecated

# Related: What is a site?

- Is large, transnational corporation a single site, or multiple sites?
- What about a company with many smaller “branch offices”?
  - One site for entire entity
  - Is each remote office a site?

# RFC 3177 says

- /48 for home networks
- /48 for enterprises (large/small)
- /47 or more for “very large subscribers”
- /64 for mobile phones (w/ bluetooth or 802.11b)
- /128 for dialup PC