

IAB Open Meeting: IP Address Architectures

Setting the scene...

IP Addresses are:...

- A means of uniquely identifying a device interface this is attached to a network
 - Endpoint identifier
- A means of identifying where a device is located within the network
 - Forwarding identifier
- IP addresses express both a form of endpoint identification and routing locality within the IP domain

Address Types

IPv4 has two address types:

Unique Addresses == Global-Use Internet

Private Addresses == Local-Use Internets

IPv6 has three address types:

Unique Addresses == Global-Use Internet

Site-Local Addresses == Scoped Local-Use Internet

Link-Local Addresses == Very Local-Use

Address Realm Membership

- IPv4 address architecture assumed a unique binding of a device interface to an IP address in a single realm membership model
 - although it is not strictly required
- IPv6 address architecture has explored the potential of explicitly 'scoped' address realm(s) coexisting with a global realm
 - Although its not entirely clear how this works in practice and what issues this architecture raises and what issues it addresses