ZEROCONF vs GAAP

Both dynamically assign multicast addresses and prevent collisions at the Ethernet layer.
ZEROCONF

• Any ipv4/v6 network (initial effort focused on ipv6 marine networks).
• Zero config, decentralized, active collision detection (uses a random number and saving state between power cycles)
• Extends existing protocols
  • Extends multicast portion of the IPv6 addressing arch (RFC4291)
  • Collision detection mechanism utilizes Multicast DNS [RFC6762] to distribute a database of dynamically assigned Ethernet addresses.
  • Updates RFC 3307 in two ways: 1) divides the area of dynamic groups IDs into different ranges (allows different protocols to be used on the network at the same time) and 2) recognizes that solicited-node multicast addresses are already in the range dynamic groups IDs (any new group ID should not use the same range).

• IANA:
  • new "eth-addr.arpa" special-use domain
  • new registry of ranges for dynamic multicast group IDs
GAAP

• Any ipv4/v6 network
• Zero config, decentralized, active collision detection (hashing algorithm).
• New lightweight protocol
• IANA:
  • well-known UDP port number for the GAAP protocol.
  • allocate one v4 and one v6 multicast address that GAAP uses for messaging.
  • allocate a multicast address block for GAAP allocated group addresses.