



# Port Extension Extended Addresses

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# Background

- **PE currently specifies a 14 bit address**
  - Suitable for direct lookup vs. table search**
  - Two most significant bits define unicast / multicast**
- **Comments from the 2.1 ballot review provided evidence that this may not large enough for certain applications**
  - These applications will probably require a much larger address space (requiring a lookup)**

# Goals

- **Enable the construction of a PE using the current addressing scheme, tag, and direct lookup**
- **Enable an optional PE extension that:**
  - Provides a significantly larger address space**
  - Interoperates with the base Port Extenders**

# Approach

- Approach:

- Define a E-CID to be 22 bits instead of 14**

- The two most significant continue to indicate unicast/multicast (GRP bits)

- The currently defined remaining 12 bits are the least significant bits of the ECID

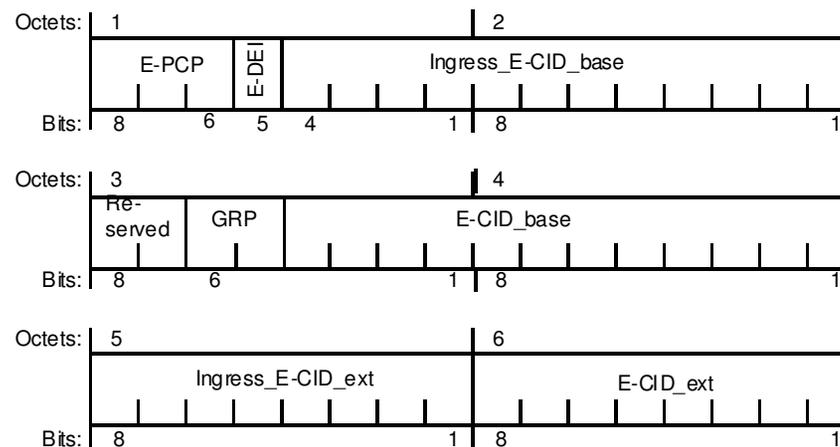
- A newly defined group of eight bits become the extension bits

- Uses the currently reserved bits in the E-TAG

- A PE that supports the larger address space:**

- Has a per-port default extension bit value that is used when connecting to a base PE on a Cascade Port.

- Sets the ingress\_ECID\_base field to zero on outbound frames whose ECID extension bits do not match the default (i.e. do not do echo cancellation).



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Thank You!