

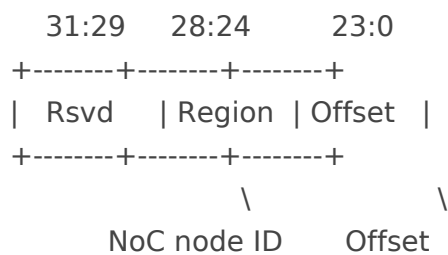
Zero-relative addressing

During a memory operation within M/BE SoC, a memory address will be used to locate data in memory or in device-register address space. Unlike with typical memory addressing found in the usual chips, M/BE utilizes a concept known as Zero-Relative Addressing (ZRA).

ZRA allows all devices and memory regions to be addressed with an offset relative to zero. This allows mitigation and reduction of address fragmentation as well as overlapping memory regions among other things.

(How does it work?)

A physical address is a true memory address that references a location within an address space. Unlike with typical architectures where addresses are truly linear, M/BE encodes physical addresses as such:



M/BE is to implement a Network-on-Chip (NoC) structured in a way such that the region identifier equates to the NoC endpoint/node ID.

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