

Emulatable Draco-VA with Ethernet

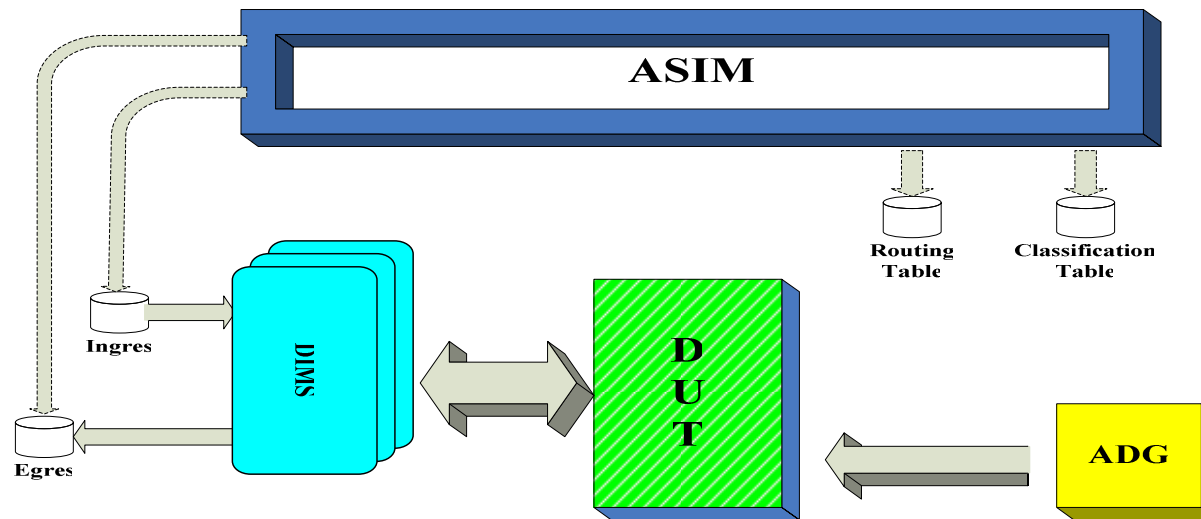
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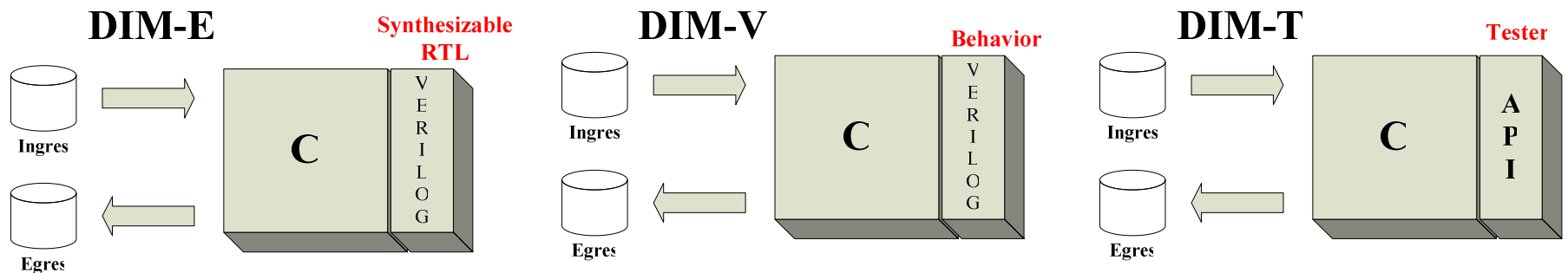


Scalable and Parallel Architecture



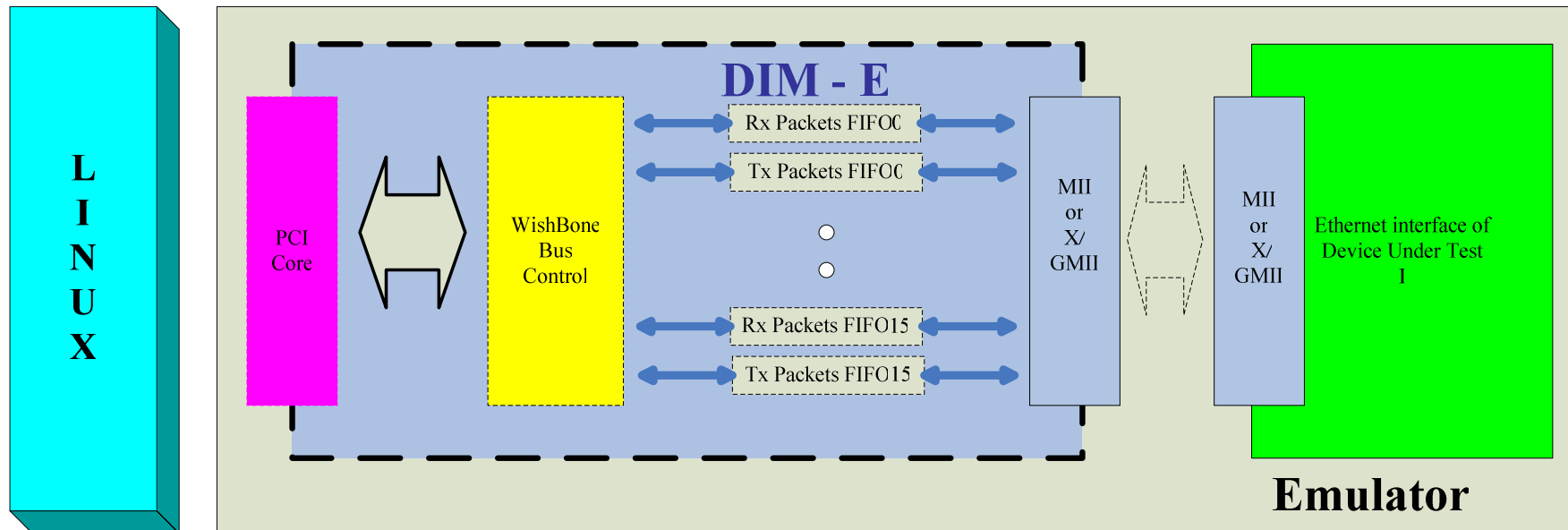
- ❖ Four Components: ASIM (Architecture Simulator) , DIM(Design Interface Module with X/G/MII interfaces), ADG(Automatic Driver Generator), SDL(System Description Language)
- ❖ Compliant to IEEE 802.3, 802.3u, 802.3z, 802.3ae, 802.3ab, 802.3x, 802.3ad, 802.2 LLC/ SNAP, jumbo packet, VLAN, IP/TCP/UDP/iSCSI, etc.
- ❖ DUT and SETB (Synthesizable and Emulatable Test Bench) are running on either an emulator or prototyping boards

DIM in Different Forms



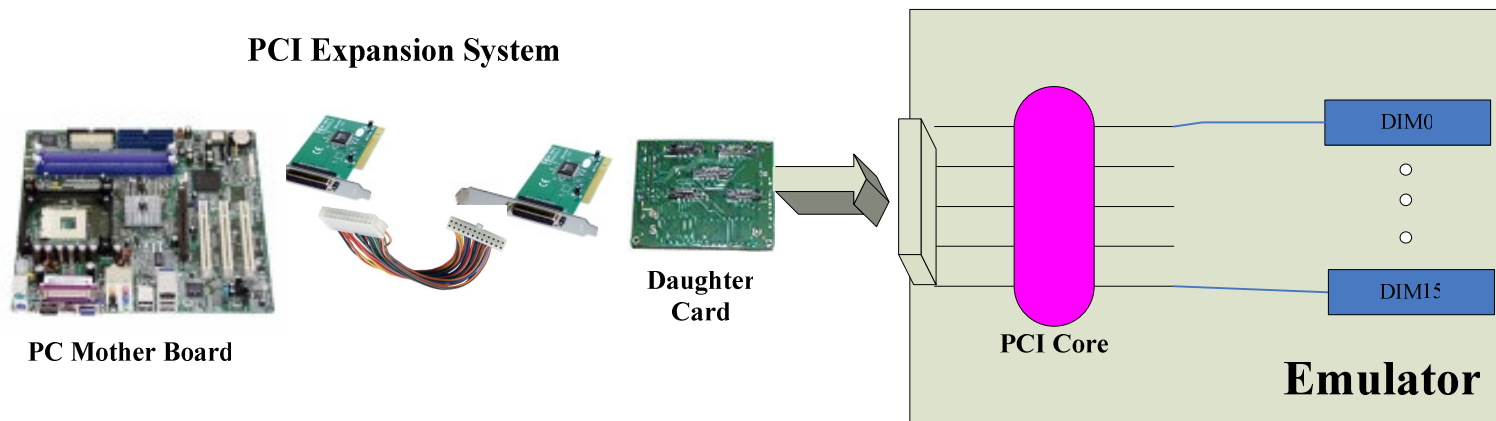
- ❖ **Three forms: DIM-V (for simulation), DIM-E (for emulation), DIM-T (for real silicon)**
- ❖ **All control/config/intelligence in Draco-VA**
 - One Unified API for simulation, emulation, and DVT (Design Verification Testing in lab)
 - Support sophisticated automatic test generator
 - Ethernet compliance suite available
 - Architecture patent in process
- ❖ **DIM-E: more powerful than other emulation solutions**
 - Number of ports is scalable and ports are running in parallel
 - Very short/illegal packets; Precise IPG control; Precise error injection; etc.

DIM-E: HW architecture



- ❖ Scalable and parallel from 1 to 16 X/G/MII ports
- ❖ Clock speed can match any emulator speed
- ❖ Work with any emulator or FPGA prototyping boards
- ❖ With Draco-VA, DIM-E has exactly the same behavior as DIM-V
 - Speed-up the same RTL regression suite at Mhz that contains normal, error, and corner cases

DIM-E: Physical Forms



❖ Hardware Components:

- One PCI Expansion System
 - One daughter card that has a PCI slot and connector
 - PCI Core is compiled next to the connected X/G/MII Port
- ## ❖ 1-16 X/G/MII ports configured into 1 PCI card/PCI Expansion System
- Scalable depends on the PC and DUT speeds

