FMC 2022 OMI Workshop – Aug 1, 2022

Title: Transitioning Local Memory from DDR to the OMI Interface

Abstract: The Open Memory Interface, OMI, is a serialized, Low Latency, Local Memory interface that is fully open sourced, royalty free, and in full production today on ASICs and FPGAs. This tutorial will introduce the OMI Specification and RTL technology along with details on development platforms and tools for users smooth transition from DDR to OMI Local Memory on next generation processors and accelerators. Details of the Transaction Layer and Link Layer protocols will be reviewed along with Differential DIMM, DDIMM, and E3.S Module implementations. Also, example applications will articulate the benefits that OMI can bring to its adopters.

Time	Title	Speaker
	INTRODUCTION	
13:00 - 13:30	OMI Overview	Allan Cantle
	RESOURCES	
13:30 - 13:45	Overview of online Resources, Website, Specs, Github, etc	Bob Szabo
13:45 - 14:05	Overview of Transaction Layer and Data Link Layer Specifications	Bruno Mesnet
14:05 - 14:10	Smart Modular - OMI Memory Module Details	Pekon Gupta
14:10 - 14:30	OMI Development Kit	Scott Burns / Steve White
	Tranistioning from DDR to OMI - Part 1	
14:30 - 15:00	Connecting your ASIC or FPGA design to OMI attached Memory	Bruno Mesnet
	BREAK	
15:00 - 15:15	Coffee Break	
	Tranistioning from DDR to OMI - Part 2	
15:15 - 15:35	Getting Started with OMI - FPGA Implementation Example	Bruno Mesnet
15:35 - 15:55	OMI Verification using SmartDV	Bipul Talukdar
	EXAMPLES	
15:55 - 16:15	IBM's P10 & Z16 Systems - OMI Lineage, Implementation, Features & Importance of Latency	Bill Starke
16:15 - 16:25	IBM's Memory Inception	Baba
16:25 - 16:35	OMI in a Composable World - A Software Perspective	Andreas Grapentin, Sven Köhler,
16:30 - 16:45	Top of Rack Shared Memory Pooling using OMI	Scott Burns / Steven White
	FUTURE	
16:45 - 17:00	OMI & CXL composable Memory Centric Computing Vision	Allan Cantle

SPEAKER LIST
Allan Cantle, Nallasway, OCC Technical Director
Bob Szabo, IBM, OCC President
Bruno Mesnet, IBM, OpenCAPI Hardware Acceleration Enablement- PMP
Pekon Gupta, Smart Modular
Scott Burns, TORmem, VP R&D
Steve White, TORmem, CTO
Zouhir Alami, IBM, OpenCAPI Hardware Acceleration Enablement
Bipul Talukdar, SmartDV, Director of Applications Engineering
Bill Starke, IBM, Distinguished Engineer: POWER Processor Architect
Lukas Wenzel, HPI
Sven Köhler, HPI
Andreas Grapentin, HPI