NVIDIA DOCA

Glossary

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Chapter 1. Terms and Acronyms

Term	Description
ACE	AXI coherency extensions
ACPI	Advanced configuration and power interface
AMBA®	Advanced microcontroller bus architecture
ARB	Arbitrate
ATF	Arm-trusted firmware
AXI4	Advanced eXtensible Interface 4
BDF address	Bus, device, function address. This is the device's PCIe bus address to uniquely identify the specific device.
BERT	Boot error record table
BF_INST_DIR	The directory where the BlueField software is installed
BFB	BlueField bootstream
BMC	Board management controller
BSD	BlueField software distribution
BSP	BlueField support package
BUF	Buffer
CBS	Committed burst size
CHI	Coherent hub interface; Arm® protocol used over the BlueField Skymesh specification
CIR	Committed information rate
CL	Cache line
CMDQ	Command queue
CMO	Cache maintenance operation
COB	Collision buffer
DAT	Data
DEK	Data encryption key
DMA	Direct memory access
DOCA	DPU SDK
DOT	Device ownership transfer

Term	Description
DPA	Data path accelerator; an auxiliary processor designed to accelerate data-path operations
DPCP	Direct packet control plane
DPDK	Data plane development kit
DPI	Deep packet inspection
DPU	Data processing unit, the third pillar of the data center with CPU and GPU
DVM	Distributed virtual memory
DW	Dword
EBS	Excess burst size
ECE	Enhanced connection establishment
ECPF	Embedded CPU physical function
EIR	Excess information rate
EMEM/EMI	External memory interface; block in the MSS which performs the actual read/write from the DDR device
eMMC	Embedded multi-media card
ESP	EFI system partition
ESP header	Encapsulating security payload
FIPS	Federal Information Processing Standards
FPGA	Field-programmable gate arrays
FS	File system
FW	Firmware
GDB	GNU debugger
GPT	GUID partition table
HART	HW thread; a logical DPA processing unit
HCA	Host-channel adapter
HNF	Home node interface
Host	When referring to "the host" this documentation is referring to the server host. When referring to the Arm based host, the documentation will specifically call out "Arm host". ▶ Server host OS refers to the Host Server OS (Linux or Windows) ▶ Arm host refers to the AARCH64 Linux OS which is running on the BlueField Arm Cores
HW	Hardware
hwmon	Hardware monitoring
IB	InfiniBand

Term	Description
ICM	Interface configuration memory
IKE	Internet key exchange
IPMB	Intelligent platform management bus
IPMI	Intelligent platform management interface
IR	Intermediate representation
KGDB	Kernel debugger
KGDBOC	Kernel debugger over console
LAT	Latency
LCRD	Link credit
LSO	Large send offload
LTO	Link-time optimization
MFT	Mellanox firmware tools
MIO	Memory-mapped I/O
MLNX_OFED	Mellanox OpenFabrics Enterprise Distribution
MSB	Most significant bit
MSS	Memory subsystem
MST	Mellanox software tools
NAT	Network address translation
NIC	Network interface card
NIST	National Institute of Standards and Technology
NS	Namespace
OCD	On-chip debugger
OOB	Out-of-band
OS	Operating system
OVS	Open vSwitch
PBS	Peak burst size
PCIe	PCI Express; Peripheral Component Interconnect Express
PF	Physical function
PIR	Peak information rate
PK	Public key
PKA	Public key accelerator
POC	Point of coherence
RD	Read
RDMA	Remote direct memory access
RegEx	Regular expression
REQ	Request
RES	Response
RN	Request node

Term	Description
	RN-F – Fully coherent request node RN-D – IO coherent request node with DVM support RN-I – IO coherent request node
RNG	Random number generator/generation
RoCE	Ethernet and RDMA over converged Ethernet
RQ	Receive queue
RShim	Random shim
RTT	Round-trip time
RX	Receive
RXP	Regular expression processor
SA	Security association
SBSA	Server base system architecture
SDK	Software development kit
SF	Sub-function or scalable function
SG	Scatter-gather
SHA	Secure hash algorithm
SMMU	System memory management unit
SNAP	Storage-defined network-accelerated processing
SNP	Snooping
SPDK	Storage performance development kit
SQ	Send queue
SR-IOV	Single-root IO virtualization
STL	Stall
Sync event	Synchronization event
TBU	Translation buffer unit
TIR	Transport interface receive
TIS	Transport interface send
TLS	Transport layer security
TRB	Trail buffer
TSO	TCP send offload
TSO	Total store order
TX	Transmit
UDS	Unix domain socket
UEFI	Unified extensible firmware interface
UPVS	UEFI persistent variable store
VF	Virtual function
VFE	Virtio full emulation

Term	Description
VM	Virtual machine
VMA	NVIDIA® Messaging Accelerator
VPI	Virtual protocol interconnect
VST	Virtual switch tagging
WorkQ or workq	Work queue
WQE	Work queue elements
WR	Write
WRDB	Write data buffer
XLIO	NVIDIA® Accelerated IO

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