

Common NFVI Telco Taskforce Paris Face-To-Face Sessions

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Reference Model Chapter 6
Reference NFVI HW Profiles and Configurations

July 2019

 THE **LINUX** FOUNDATION



Reference NFVI HW Profiles and Configurations

Agenda

- Revisit Karine's: "Rationale to separate SW and HW Profiles"
- Host Profiles (HW Profiles and Configurations)
 - Compute
 - Network

Reference NFVI HW Profiles and Configurations

Rationale to separate SW and HW Profiles

Rationale for decoupling SW Profile and HW Profile

- Characterise SW and HW components and configuration separately

Other Reasons

- SW Capabilities are of concern to the users including workload (VNF) developers
- Cloud Operators need to provide these SW Capabilities by configuring
 - Physical Server (BIOS)
 - Software Layer (VIM, Hypervisor, Host Operating System, etc.)

Reference NFVI HW Profiles and Configurations

HW (Host) Profiles and Configurations: Compute

Feature	Description	Basic Type	Network Intensive	Compute Intensive
Minimum Number of CPU	This determines the number of CPU exist within each physical server	2	2	2
Minimum Number of Cores per CPU	This determines the minimum number of cores needed per each CPU.	20	20	20
NUMA		N	Y	Y
Simultaneous MultiThreading (SMT/HT)		Y	Y	Y
GPU	Hardware Acceleration	N	N	Y

Issues/Changes? Are these all relevant? What is missing?

Reference NFVI HW Profiles and Configurations

HW (Host) Profiles and Configurations: Network

Feature	Description	Basic Type	Network Intensive	Compute Intensive
NIC Ports	Total Number of NIC Ports available in the platform	4	4	4
Port Speed	Port speed specified in Gbps	10	25	25
PCIe slots	Number of PCIe slots available in the platform	8	8	8
PCIe speed		Gen 3	Gen 3	Gen 3
PCIe Lanes		8	8	8
Cryptographic Acceleration	IPSec, Crypto			
SmartNIC	offload vSwitch functionality to hardware			

Issues/Changes? Are these all relevant? What is missing?

Appendix