Modeling DPUs / IPUs

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Apology

This will not be a technical presentation



Why?

Meet the needs of the stakeholders:

- End Users
- Vendors: ISVs, NIC vendors, server vendors
- Upstream maintainers: Kernel and other components



What?

• What is a DPU / IPU?



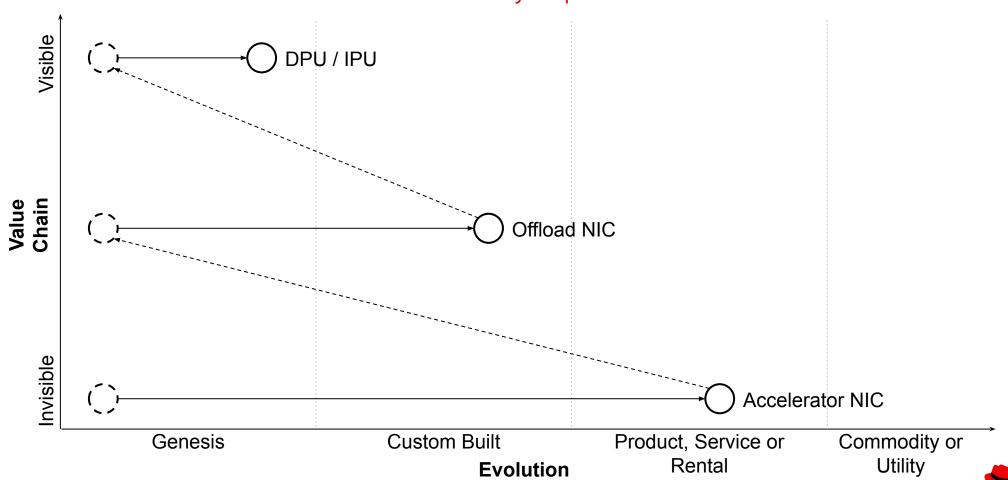
Types of NICs

- Accelerator NIC
 - Packet processing may be accelerated by NIC
 - But part of processing of each packet is done by host
- Offload NIC
 - Entire packet processing may be performed by NIC
 - Control of datapath remains on host
- DPU/IPU
 - Control of datapath moves to NIC



Evolution of NICs

A Wardley Map



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What?

What needs does a DPU meet and for whom?

- Users
- Vendors
- Upstream maintainers



How?

Ok, so this is the hard part

- Understand the stakeholders's needs
- Model those needs in software
- Create common APIs
- Win!



Thank you

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