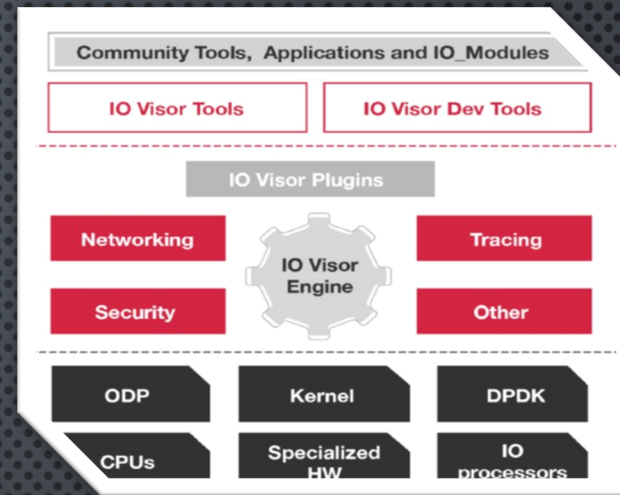
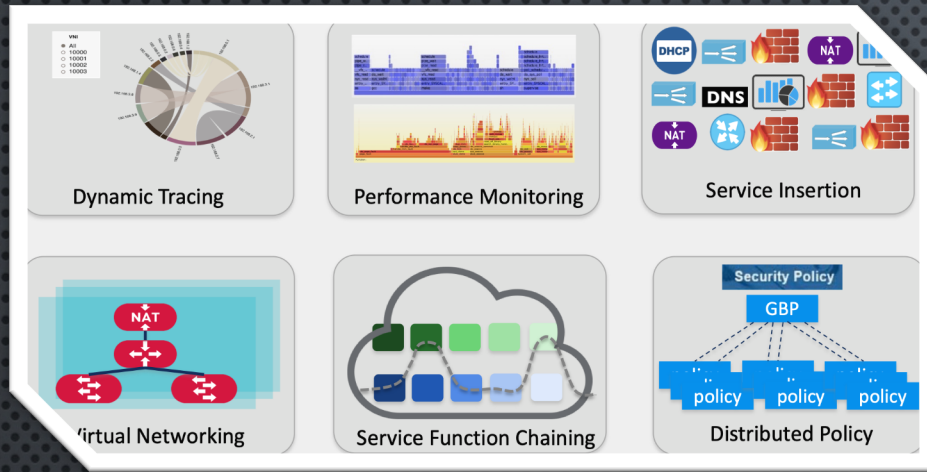


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Dec 1st, 2021

Polycube Project Overview

Background

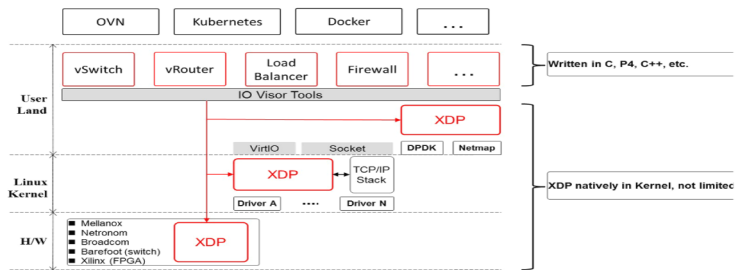
1. 2015: LF IO Visor Project started by PLUMgrid, Cisco, Intel, Facebook, Huawei, etc.
2. 2015-2016: various projects created or joined, including BCC, Net-IO, Cilium, CETH, P4-to-eBPF, DPDK-eBPF, XDP, etc.
3. 2016: XDP proposed and contributed to Linux Kernel
4. 2016: VMware acquired PLUMgrid and joined the community
5. 2018: Polycube Project started by VMware, Huawei, Facebook, Tsinghua University, POLITO University, etc.
6. 2018: IO Visor converted to community-driven project (no fee, no membership)
7. 2019~: gobpf, go2bpf, bpftrace, dCube, kubectrl-trace, etc. projects (and some POCs going on)



Scope of IO Visor Projects

Original XDP Concept

XDP: Express Networking Data Path atop IO Visor



- 1. IO Visor is the fundamental **Framework/Platform**
- 2. XDP built for Express **Network Data Plane**



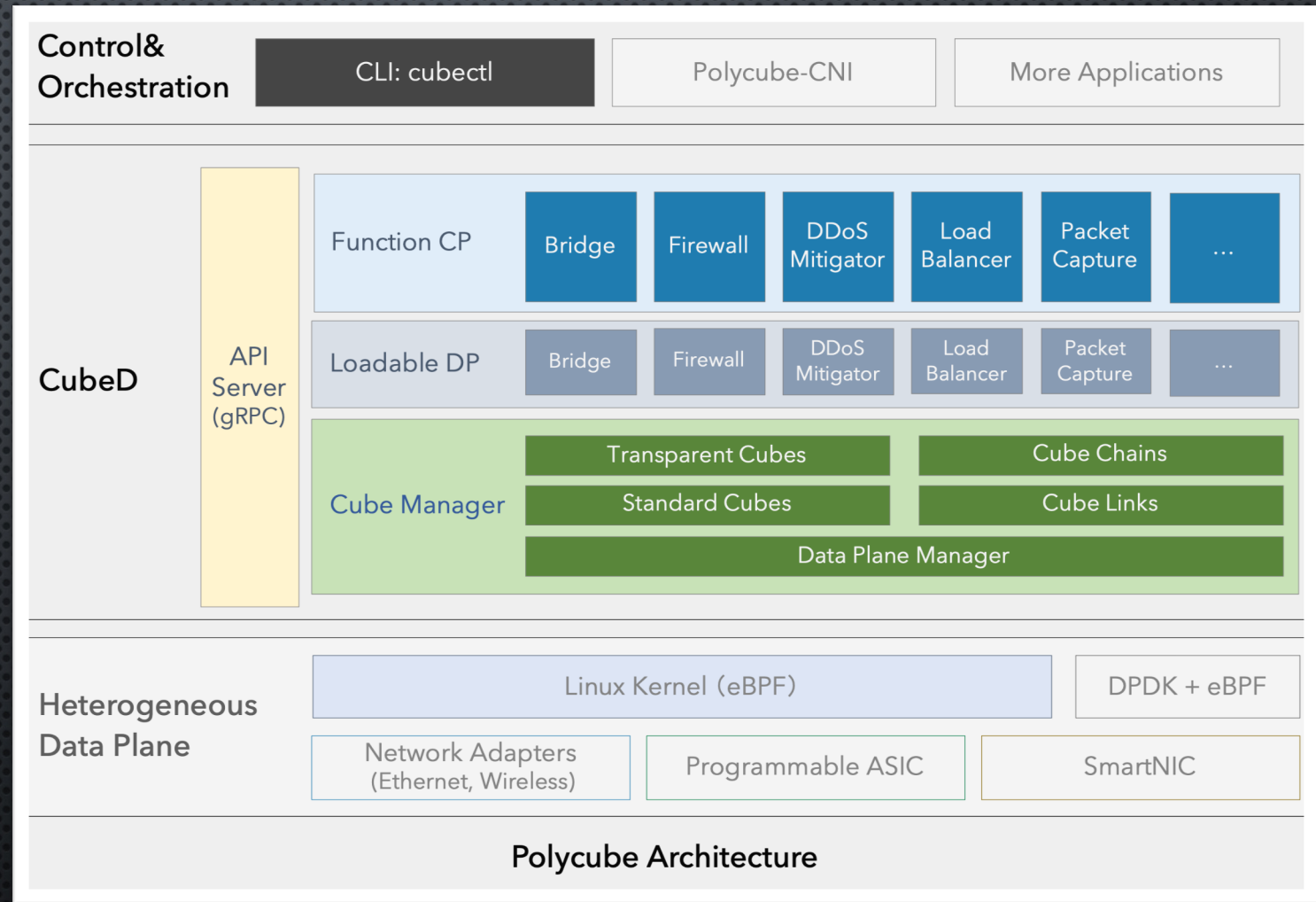
Previous Community Members



Polycube

- The Networking of IO Visor
 - a general-purpose framework for network functions
 - built as Linux Native framework
 - with concepts of original XDP
- Available Network functions
 - FW, LB, DDoS Mitigator, etc.
 - vSwitch, vRouter, NAT, etc.
- Solutions built atop
 - CNI Plugin for Kubernetes
 - alternative implementation for “iptables”
- Roadmap
 - A fully programmable Networking Simulator
 - A new version in golang to be released

Architecture



Next Phase



Community
Driven



Collaborations



Iteratively
Evolving



Remain
Vendor-Neutral

More

IO Visor: iovisor.org (content to be updated)

Polycube:

- <https://polycube.network>
- <https://ieeexplore.ieee.org/document/9340283>

Thanks!