

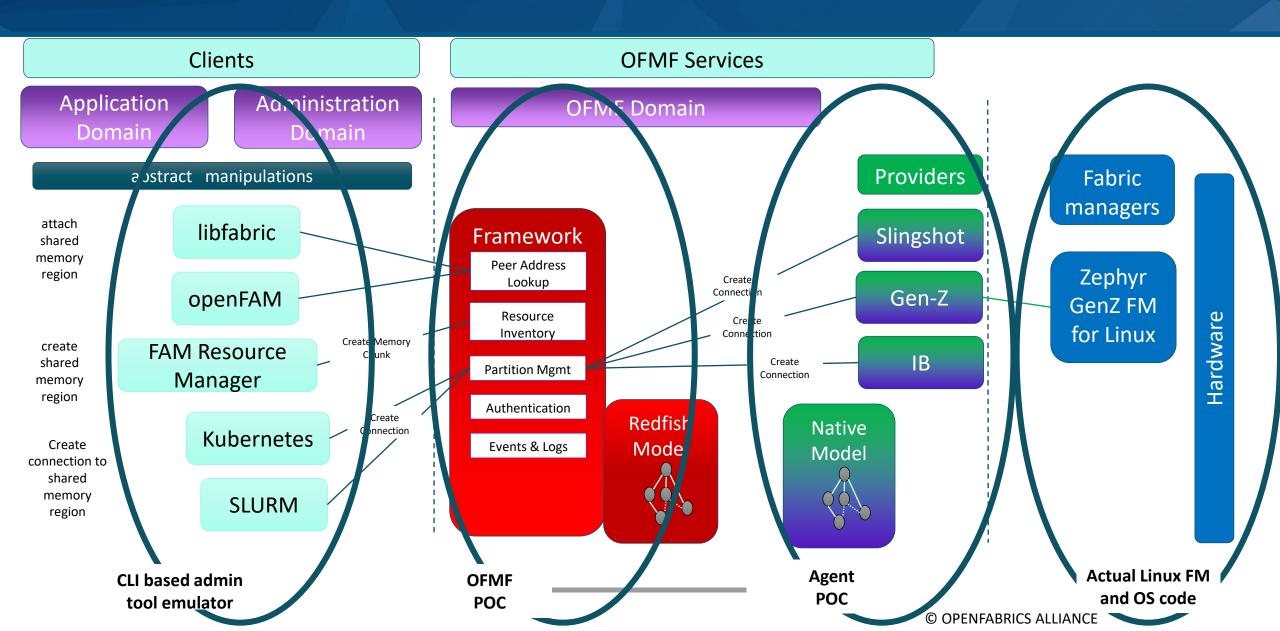
Workshop OFMF/Gen-Z PoC

### Open Fabrics Management Framework Demonstration

Management of Fabric Attached Memory via the OFMF

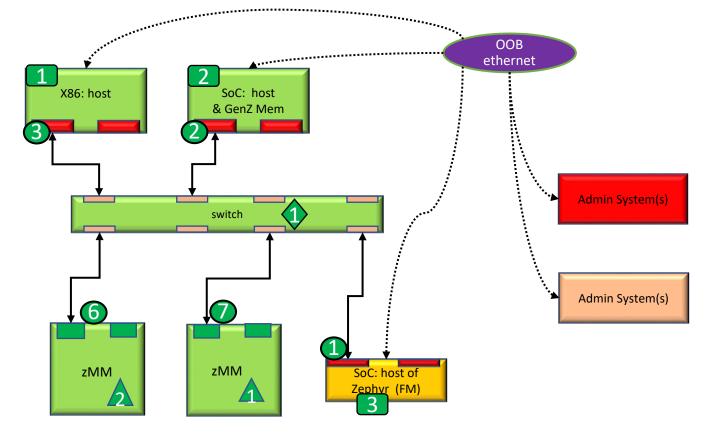
Erich Hanke Intelliprop
Russ Herrell HPE
Jim Hull Intelliprop

# OPEN FABRIC MANAGEMENT FRAMEWORK ARCHITECTURE



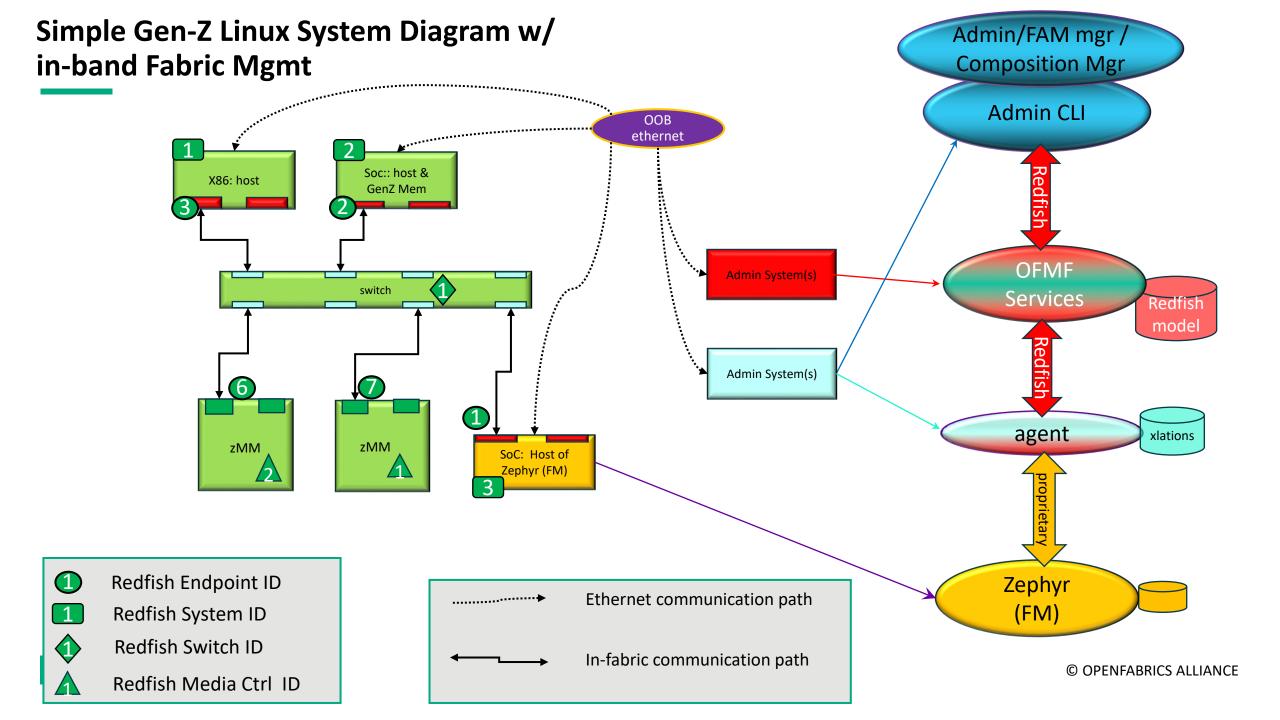
## Simple Gen-Z Linux System Diagram w/in-band Fabric Mgmt

- zMM = GenZ Memory Module
- Compute Host
  - Also may export GenZ Memory
- Switch: GenZ fabric switch
  - may be made of multiple devices
- Zephyr SoC: GenZ Fabric Manager host
  - Zephyr is Linux GenZ fabric manager
- Admin Systems: Virtual Machines running our OFMF demo code and managing the Gen-Z fabric resources over Ethernet

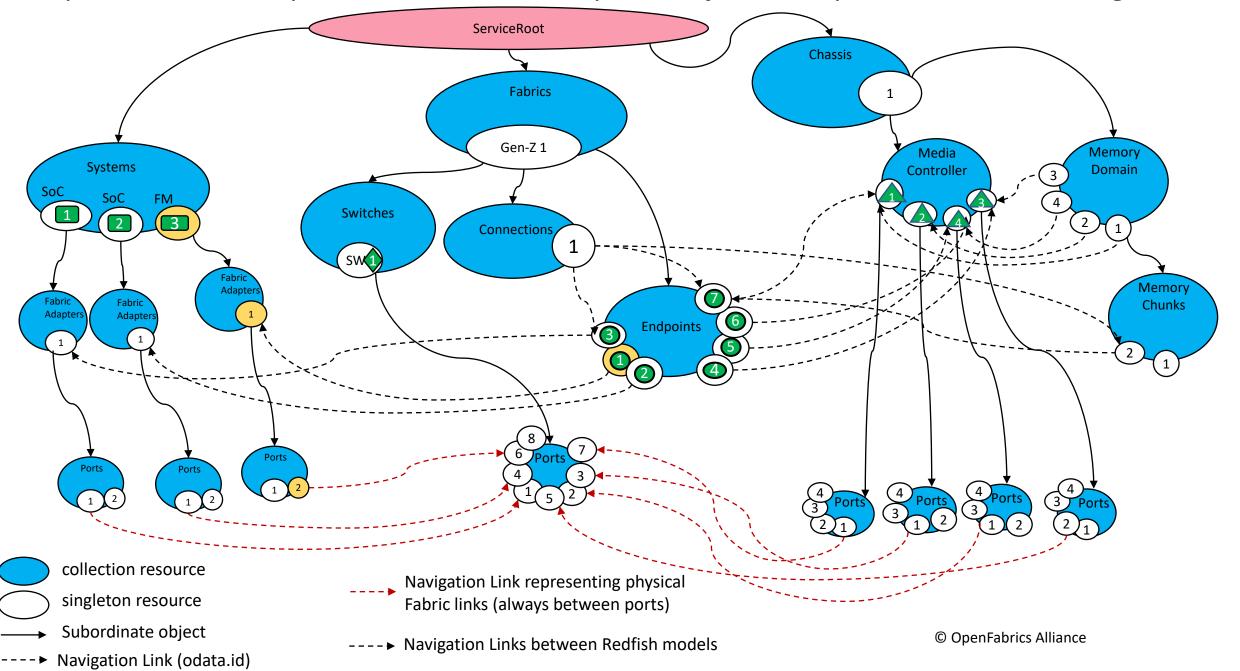






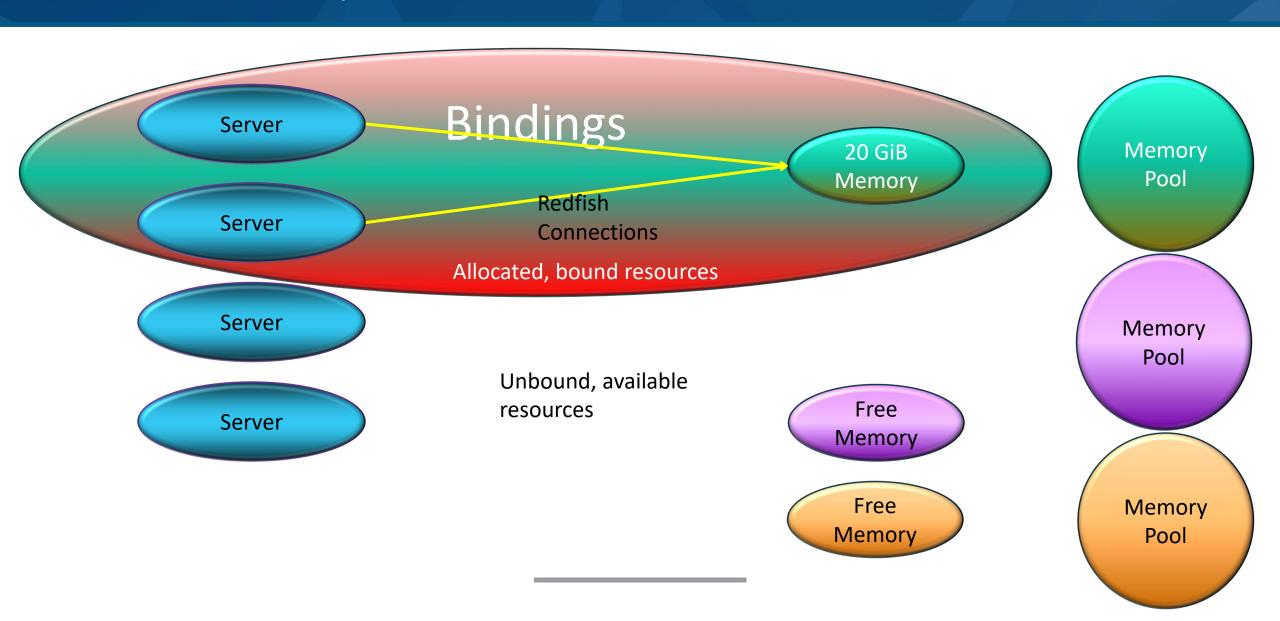


Simple Gen-Z Linux System Redfish Tree: Physical Objects, Endpoints, and Port linkages

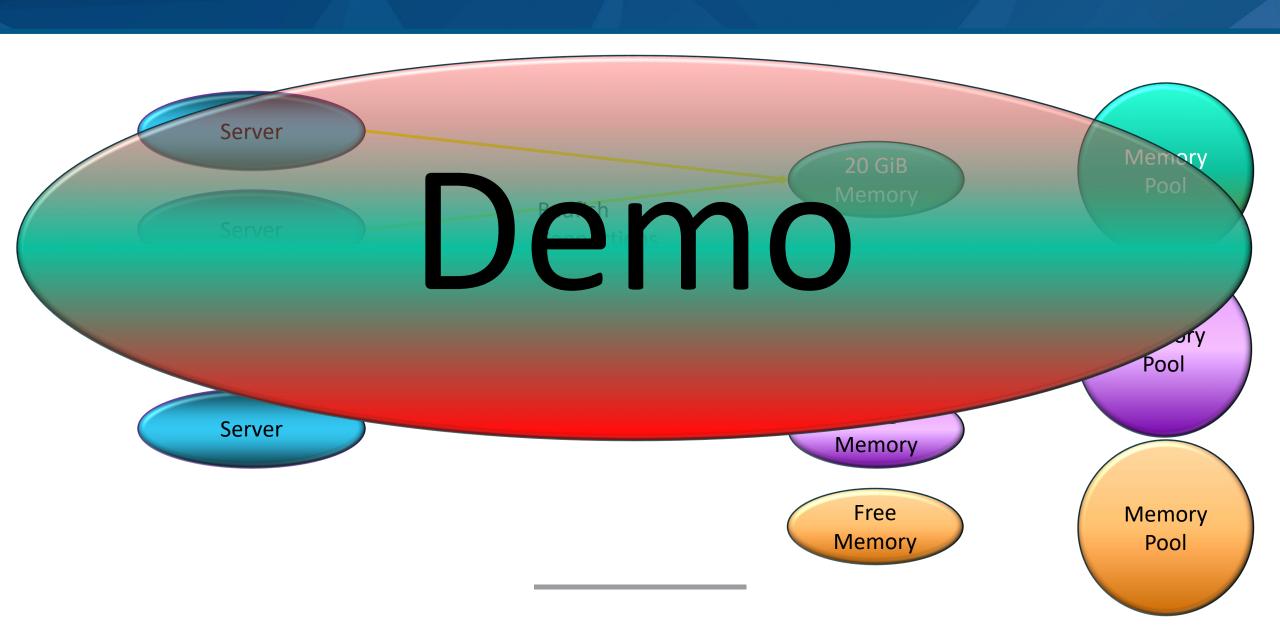


#### IT'S A SIMPLE REQUEST

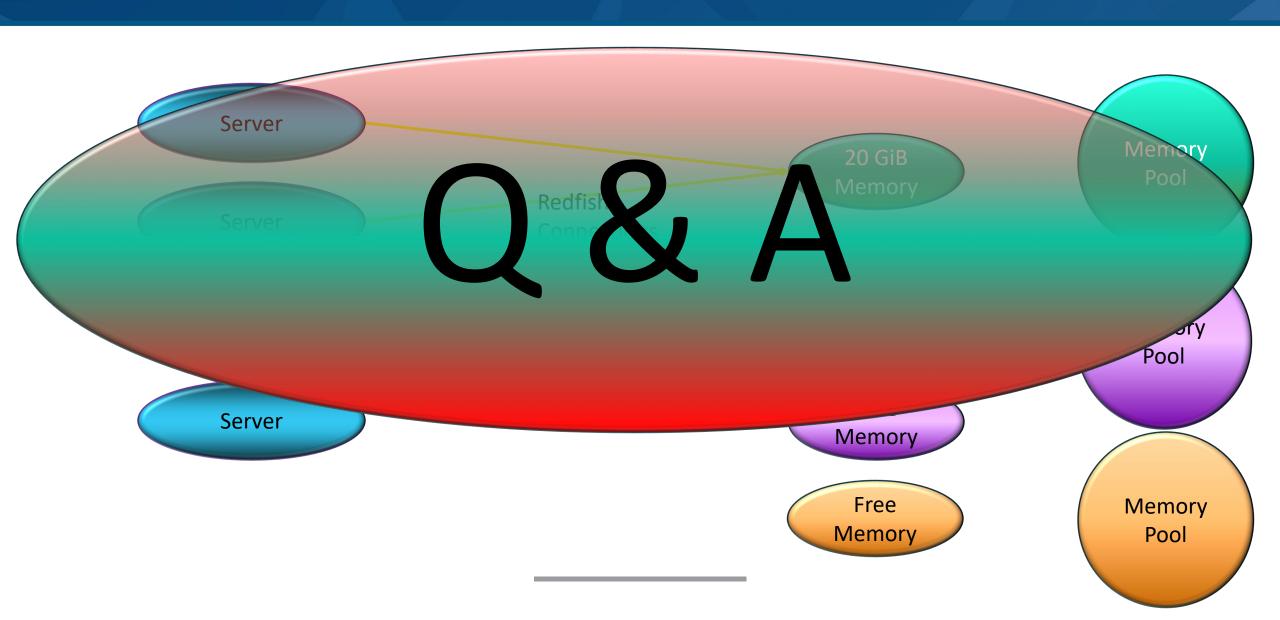
Find 20 GiB of Fabric Attached Memory for Two Servers to Share



#### DEMO



#### THANK YOU

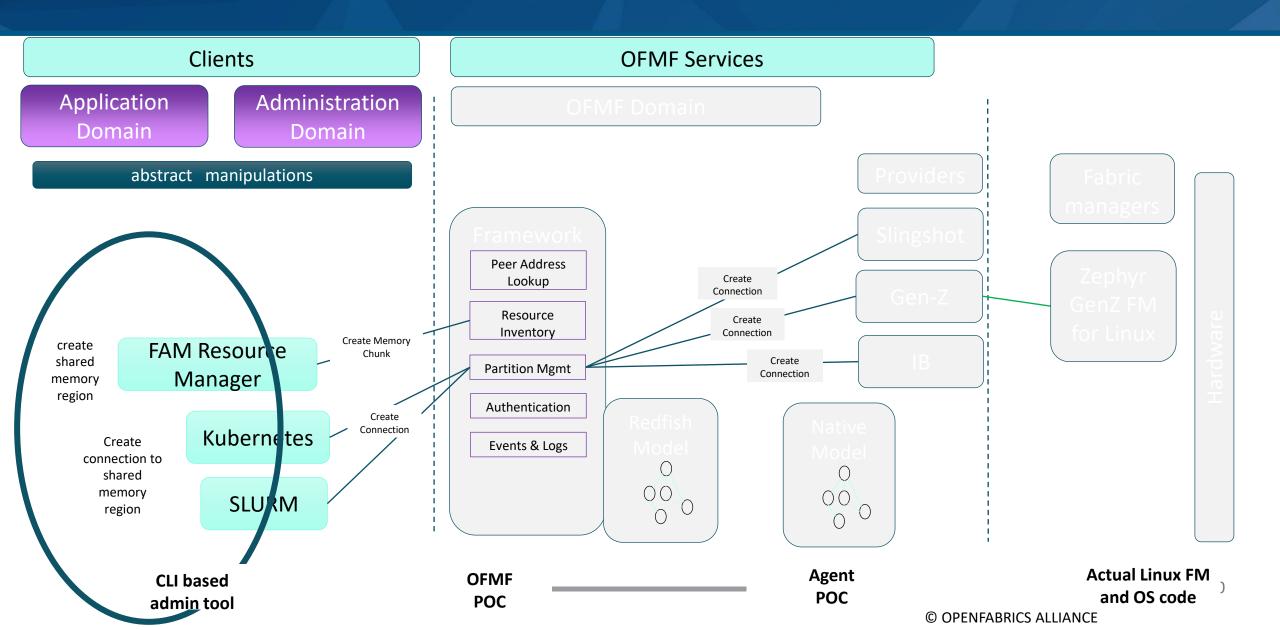




2022 OFA Virtual Workshop

**THANK YOU** 

# OPEN FABRIC MANAGEMENT FRAMEWORK ARCHITECTURE



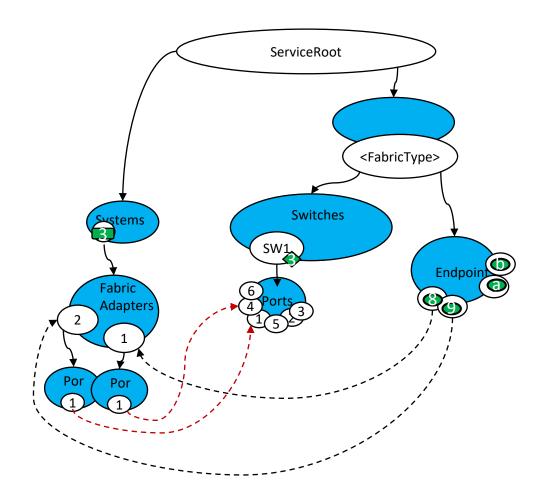
### Redfish Physical Fabric Model

#### Insights

- Fabric itself (the connectivity) is modeled as ports and endpoints
- Physical fabric connections (eg. Cables) are always between 'Ports'
- Ports are traced back to the fabric devices that drive the ports
- Fabric devices trace back to physical or logical infrastructure (what controls the fabric device) AND to the 'Endpoint' object associated with the fabric device
- Discovery of physical and logical resources accessible via the fabric is a fabric-specific operation.

#### Role of Redfish in the OFMF effort

- Use Redfish objects and schema to create an abstract model of the resources found on a given fabric
- Use this abstract model to inform clients of the OFMF about resources available
- Allow clients to manage these resources by manipulating the Redfish models



- Navigation Link representing physical Fabric links (always between ports)
- ---- Navigation Links between Redfish models