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| Use Case Description | Create a zone to host a K8s cluster within a composable DC fabric |
| Actors | Fabric Manager, Resource manager, Composer, Administrator,  |
| Description | Use Redfish ‘zone’ object to define a virtual, private network within the larger fabric  |
| Normal Flow | * Initial state
* Diverse free pools of compute, memory, GPU, HSN, and storage resources are in power savings mode (offline)
* Diverse pools of compute, memory, GPU, HSN, and storage resources are available in existing clusters currently in service (online)
* Ethernet and online high speed Networks are running
* Other virtual clusters (K8s and others) running on the ‘online’ machines
* List of cluster members defined. Resources reserved by Composing Manager
* Resource data locality-determined
* Parses members to make sure that we have free non-associate members
* Create a Redfish fabric zone
	+ Post to the Redfish server handing it a potential new zone—list of endpoints and address pool
	+ Tracking MAC addresses, IP addresses, LIDs, etc.
	+ Zone type—zone of zones or zone of endpoints
		- Tying IO zones with compute zones for example
	+ Address pools with overlay and underlay addressing
	+ Restrict the zones to a specific set of addresses---apply to an address pool
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| Normal Flow | Composing Manager:* Parse the list of cluster members
* Query cluster member endpoints for membership in existing ‘zones’
	+ Validate isolation
	+ What about multi-zone membership?
* Create a Redfish fabric zone object based on Redfish schema
	+ Do we need an OFMF utility to do this?
	+ Fill in the endpoints (resources) to be contained in the zone
	+ How do we indicate address pool restrictions?
	+ Do we indicate an optional ‘make symmetric connections’ task at the same call? <not needed if endpoint groups>
* Post the Redfish zone object to the OFMF’s resource tree
	+ Create the address pool first and then tie the zone to it

OFMF:* OFMF: parse the HTTP request and post a new zone
* OFMF: calculate the new route table entries and patch appropriate switch or router table entries, if enabled
	+ policy may not enable routes until connections are enabled
* OFMF: update (patch) appropriate endpoint objects
* OFMF: update hardware as appropriate
* OFMF: respond to client with success
* If you do a post of an address zone, we need to be able to check to make sure address pools are not duplicated.
	+ Redfish will provide the checks as the provider
	+ Isolate the fabric types?
* Verify the zone contains the endpoints
* The hardware must match the Redfish model.
* Inform the DHCP server that an event occurred.

Scenario:Event broadcast to subscribing fabric membersGCID* Routing id per endpoint and switch
* Requestor/responder,

Gen-Z requires* Zone status
* Links to endpoints and links to involved switches
* Links to resource blocks---contain composable resource point to a Redfish structure
* Resource identifier
* External accessibility---defines internal and external permissions, additionally
* Default routing
* Zone type---zone of endpoints or a zone of zones
* Default type
* Link to address pools that sets up constraints
* Contained by zones
* Contains zones pointer
* Actions----adding and removing endpoints---just added and they trigger event notifications
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| Alternate Flow 1 | *
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