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| Use Case Description | * RM creates logical memory region |
| Actors | * Memory Resource Manager (FAM Mgr), Composability Manager (CM), OFMF & providers |
| Description | * CM requests logical memory region from FAM Mgr * FAM Mgr collects proper inventory, creates the logical memory region from physical resources, and returns the URI of the |
| Comments |  |
| Input Data | * Size of memory region * Type of memory * Attributes   + Access Types, addressing granularity   + Read and Write Permission capabilities   + Sharing / isolation requirements   + Self-encryption requirements   + QoS, HA, RAS requirements * Affinity requirements? |
| Preconditions | * FAM Mgr is in-service, has sufficient free pool of physical FAM resources * Fabric is up and OFMF is actively managing it |
| Postconditions | * OFMF Redfish tree contains the description of the logical memory region, any connections and zones, and any other objects required to implement the logical memory region * Fabric Managers’ (providers) fabric models contain the appropriate subset of resources * Actual fabric hardware state matches the OFMF Redfish description and desired fabric functionality is enabled |
| Trigger | * FAM Mgr is passed a request to create a logical memory region |
| Normal Flow  (single chunk allocated from free list) | FAM Mgr Allocates the requested logical memory region   * Parse logical memory requirements * Requested memory region requires single memory chunk from a multi-chunk, multi-tenant endpoint already modeled as multiple memory chunks   + Multi-ported memory device treated as multi-ported endpoint? * POST relevant objects to OFMF   + POST logical memory region to OFMF     - Linked to appropriate memory chunk     - Linked to appropriate FAM Mgr event collection / management agents   + POST new zone containing memory chunk endpoint(s) and management endpoints   + Create Connection policies required for error and monitoring flows   + Create Connections required for error and monitoring flows   + OFMF returns all objects created and any errors or other changes * POST/PATCH resulting logical memory region to FAM Mgr Redfish data base, if appropriate * Return success and URI of allocated logical memory region to caller (CM) |
| Alternate flow 1  (FAM Mgr composes a multi-chunk memory region) | FAM Mgr Allocates the requested logical memory region   * Parse logical memory requirements * Requested memory region requires multiple memory chunks from multiple endpoints. * FAM Mgr determines sizes of required memory chunks and number of required different endpoints * POST required memory chunk objects to OFMF   + Multiple POSTs to each memory object endpoint * POST logical memory region to OFMF   + - Linked to appropriate memory chunks     - Linked to appropriate FAM Mgr event collection / management agents   + POST new zone containing memory chunk endpoint(s) and management endpoints   + Create Connection policies required for error and monitoring flows   + Create Connections required for error and monitoring flows   + OFMF returns all objects created and any errors or other changes * POST/PATCH resulting logical memory region to FAM Mgr Redfish data base, if appropriate * Return success and URI of allocated logical memory region to caller (CM) |
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