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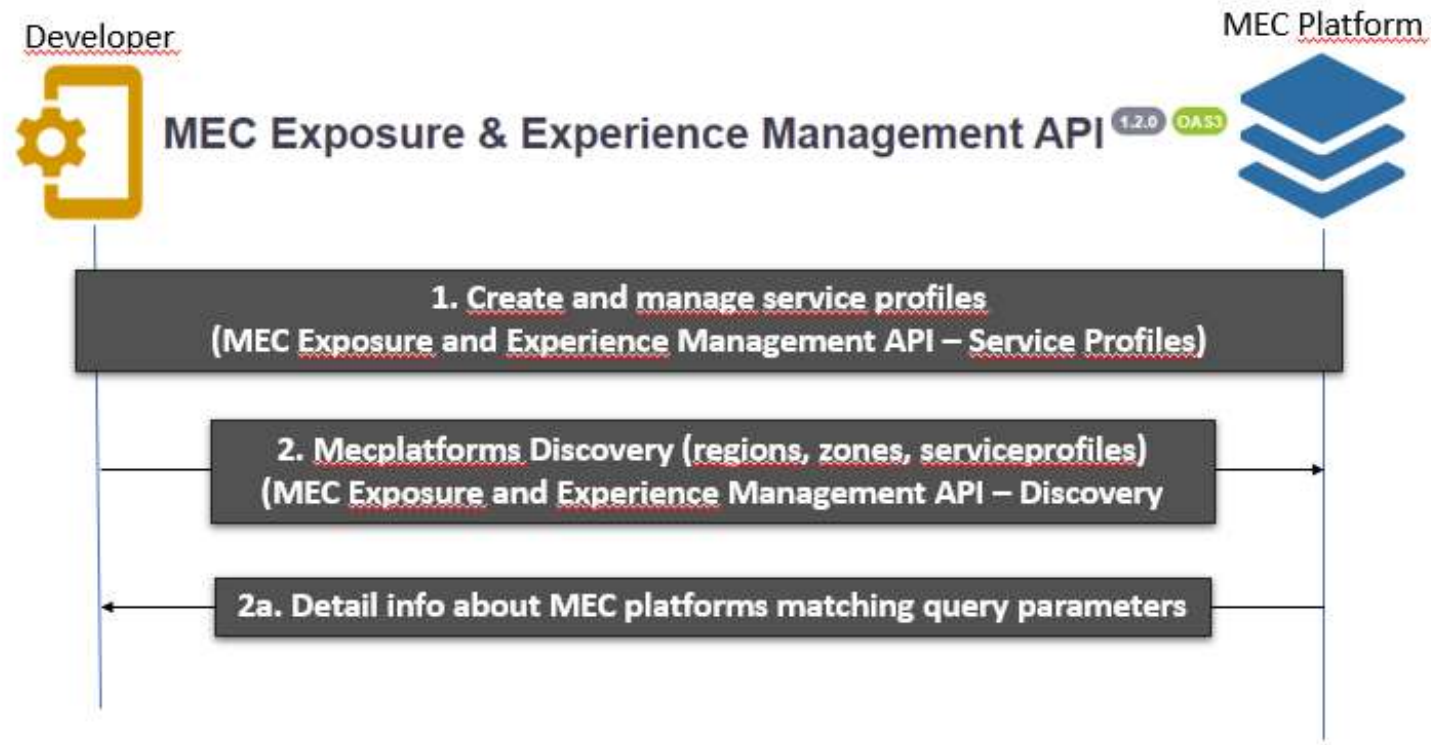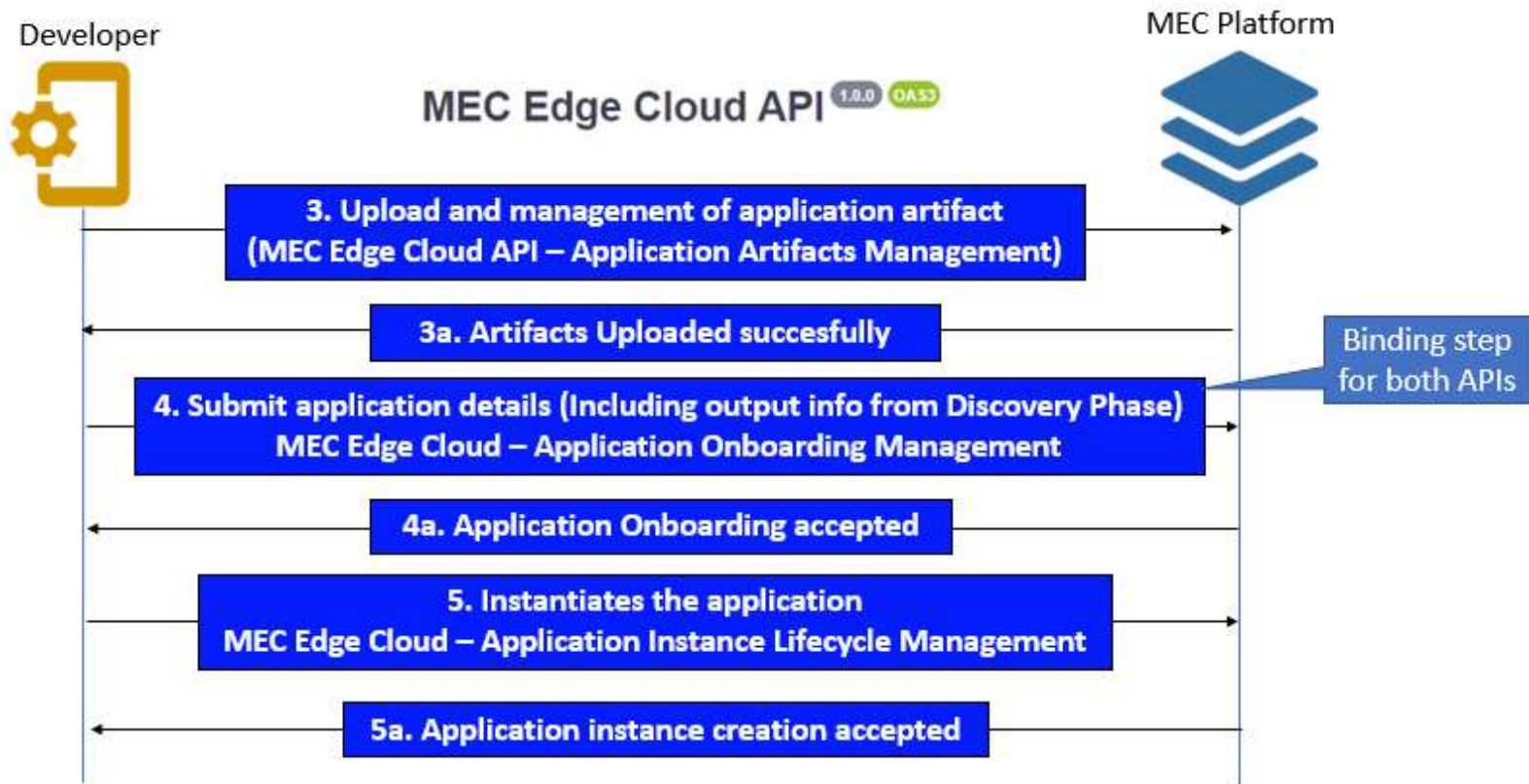# CAMARA – MEC & Deployment API

July 2022

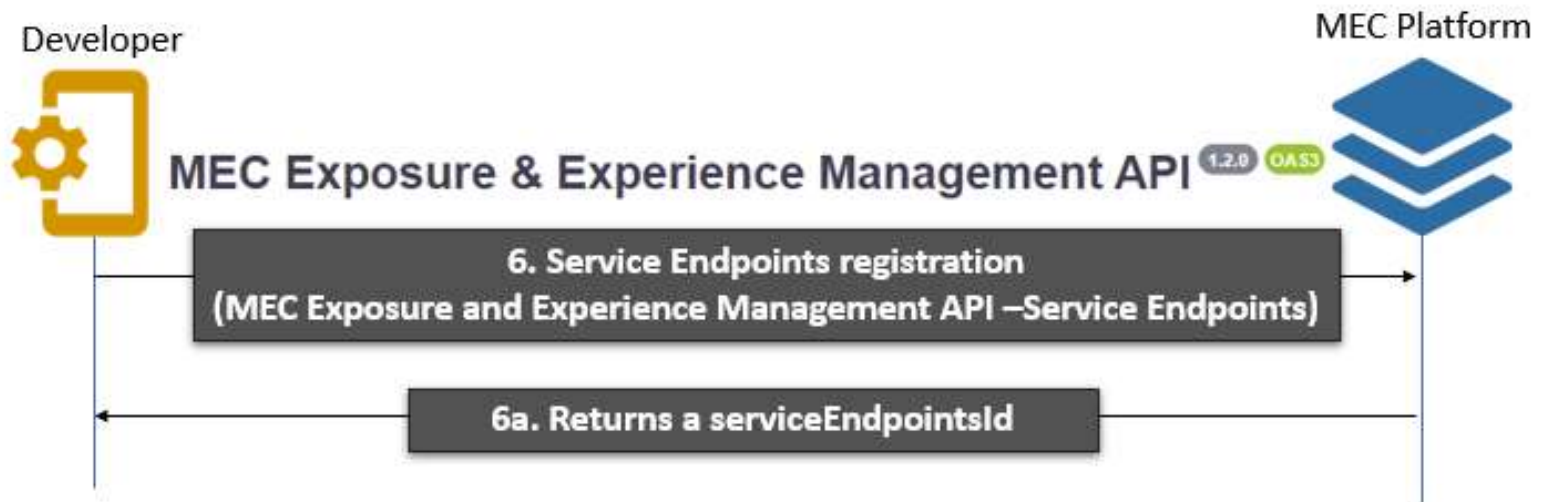# Flow Analysis – Discovery Phase

Flow Analysis – Application Onboarding Phase

MEC Edge Cloud API 1.0.0 OAS3

Developer — MEC Platform

3. Upload and management of application artifact
(MEC Edge Cloud API – Application Artifacts Management)

3a. Artifacts Uploaded succesfully

4. Submit application details (Including output info from Discovery Phase)
MEC Edge Cloud – Application Onboarding Management

> Binding step for both APIs

4a. Application Onboarding accepted

5. Instantiates the application
MEC Edge Cloud – Application Instance Lifecycle Management

5a. Application instance creation accepted

**Resource Management might be included in this phase

Flow Analysis – Service Endpoints Phase

MEC Experience Management and Exposure - Discovery

Discovery   Discover the regions and zones in the MEC service, find optimal MEC Platforms for your deployed applications, and optimal service endpoints for your clients to connect to.   ︿

| GET | / | List the links to the top-level resources of this API | ⌄ 🔓 |

| GET | /serviceendpoints | Find optimal Service Endpoints for clients to connect to | ⌄ 🔓 |

| GET | /mecplatforms | Discover optimal MEC Platforms for deployed applications | ⌄ 🔓 |

| GET | /regions | List the geographical regions supported, and the associated zones | ⌄ 🔓 |

| GET | /regions/{regionId} | Fetch details for a region | ⌄ 🔓 |

| GET | /zones | List all zones, or zones within a region | ⌄ 🔓 |

| GET | /zones/{zoneId} | Read the properties of a zone | ⌄ 🔓 |

MEC Experience Management and Exposure – Service Endpoints

Service Endpoints Register and manage the routable Service Endpoints of your deployed applications.

POST /serviceendpoints Register Service Endpoints

GET /serviceendpoints/{serviceEndpointsId} Get registered edge service endpoint information

PUT /serviceendpoints/{serviceEndpointsId} Update a Service Endpoint

DELETE /serviceendpoints/{serviceEndpointsId} Deregister an application's Service Endpoint

MEC Experience Management and Exposure – Service Profiles

Service Profiles — Create and manage profiles that describe the service requirements of your MEC applications, such as the required connection bandwidth and maximum latency.

POST	/serviceprofiles	Create a service profile

GET	/serviceprofiles	List all service profiles registered under your API key

GET	/serviceprofiles/{serviceProfileId}	Fetch a service profile

PUT	/serviceprofiles/{serviceProfileId}	Update Service Profile

DELETE	/serviceprofiles/{serviceProfileId}	Delete a Service Profile

MEC Edge Cloud API

Application Provider Resource Management ∧

| POST | /isv/resource/appProvider/{appProviderId} | Reserves resources (compute, network and storage) on OP zones. ISVs registered with home OP reserves resources on OP zones. | ∨ 🔒 |

| GET | /isv/resource/appProvider/{appProviderId} | Retrieves the resource pool reserved by an ISV | ∨ 🔒 |

| PATCH | /isv/resource/appProvider/{appProviderId} | Updates resources reserved for a pool by an ISV | ∨ 🔒 |

| DELETE | /isv/resource/appProvider/{appProviderId}/pool/{poolId} | Deletes the resource pool reserved by an ISV | ∨ 🔒 |

- **reserveComputeResources** Reserves compute, network and storage resources on specified zones for an application provider
- **updateResourceReservation** Updates (add, remove or change amount) resources reserved for an application provider
- **viewReservedResources** Retrieves resources reserved for an application provider
- **removeReservedResources** Remove resources reserved for an application provider

MEC Edge Cloud API

Application Artifacts Management ⌃

POST	/artifact	Uploads application artifact on an OP. Artifact is a zip file containing scripts and/or packaging files like Terraform or Helm which are required to create an instance of an application.	⌄ 🔓

GET	/artifact/{artifactId}	Retrieves details about an artifact.	⌄ 🔓

DELETE	/artifact/{artifactId}	Removes an artifact from an OP.	⌄ 🔓

POST	/files	Uploads an image file. Application provider uses this api to onboard an application image to an OP.	⌄ 🔓

DELETE	/files/{fileId}	Removes an image file from partner OP.	⌄ 🔓

GET	/files/{fileId}	View an image file from partner OP.	⌄ 🔓

- **onboardArtifact** Submits an artifact to operator platform
- **removeArtifact** Removes an artifact from operator platform
- **viewArtifact** Retrieves an artifact details
- **uploadFile** Upload application binaries to operator platform
- **removeFile** Removes application binaries from operator platform
- **viewFileInfo** Retrieves details about binaries assosiated with an application

MEC Edge Cloud API

Application Onboarding Management ∧

POST	/application/onboarding	Submits an application details to a partner OP. Based on the details provided, partner OP shall do bookkeeping, resource validation and other pre-deployment operations.
GET	/application/onboarding/{appId}	Retrives application details from an OP
PATCH	/application/onboarding/{appId}	Updates an OP about changes in application compute resource requirements, QOS Profile, assosiated descriptor or change in assosiated components
DELETE	/application/onboarding/{appId}/zone/{zoneId}	Deboards an application from partner OP zones
POST	/application/onboarding/{appId}/additionalZones	Onboards an existing application to a new zone.
POST	/application/onboarding/{appId}/zoneForbid	Restrict/unrestrict application instantiation on a zone

- **onboardApplication** - Submits an application details to an OP. Based on the details provided, OP shall do bookkeeping, resource validation and other pre-deployment operations.
- **updateApplication** - Updates an OP about changes in application compute resource requirements, QOS Profile, assosiated descriptor or change in assosiated components
- **removeApplication** - Removes an application from an OP
- **viewApplication** - Retrives application details from an OP
- **onboardExistingAppNewZones** - Make an application available on new additional zones
- **lockUnlockApplicationZone** - Forbid or permit intantiation of application on a zone
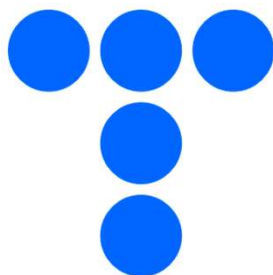
MEC Edge Cloud API

Application Instance Lifecycle Management

POST	/application/lcm/{appId}	Instantiates an application on an OP zone.

GET	/application/lcm/{appId}/instance/{appInstanceId}/zone/{zoneId}	Retrieves an application instance details from OP.

DELETE	/application/lcm/{appId}/instance/{appInstanceId}/zone/{zoneId}	Terminate an application instance on a partner OP zone.

instantiateApplication - Submits an application details to an OP. Based on the details provided, OP shall do bookkeeping, resource validation and other pre-deployment operations.
viewApplicationInstance - Retrives details of an application instance running on a zone
removeApplication - Removes an application instance from an OP

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