

EALTEdge – Enterprise Application on Light Weight 5G Telco Edge

Gaurav Agrawal, PTL of EALTEdge BP

24th Sept, 2021



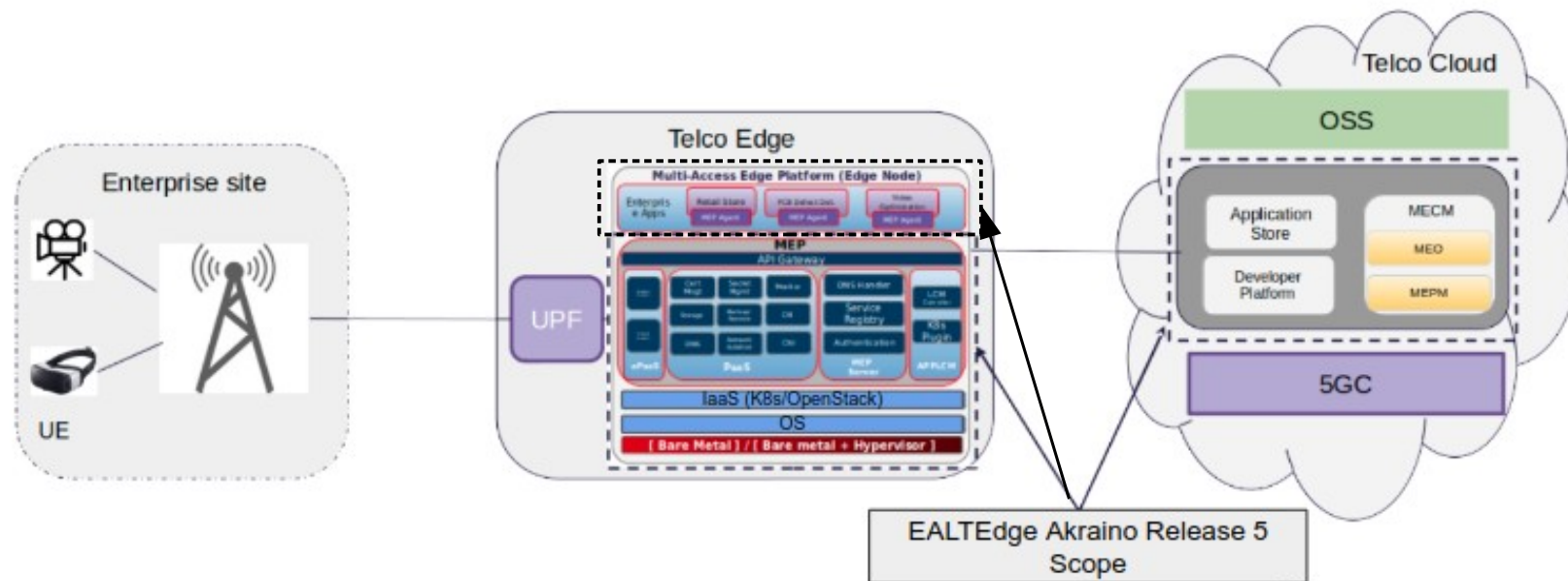
EALTEdge Overview

Blueprint under 5G MEC system Blueprint Family. This BP is meant to be leveraged by Telecom operators to provide edge computing capability to its enterprise users.

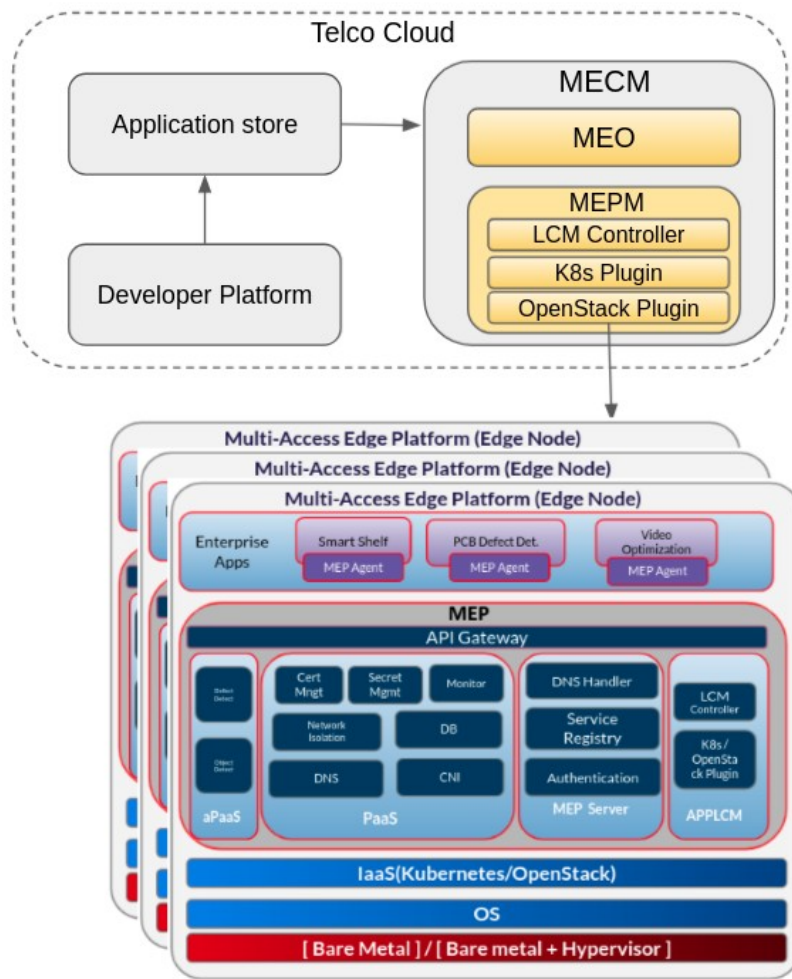
High Level objective of blueprint includes:

- Edge Platform with Management: Provide a edge computing platform along with application orchestration & management to host enterprise applications on Telco Edge.
- Developer Platform: Provide platform for enterprise application developers to develop, test, package & onboard their applications easily & quickly
- Enterprise use case specific applications & platform capabilities: SmartShelf, PCB Defect Detection, Object Detection etc, Backup & Restore, Storage etc.
- Easy Deployment & Maintenance: OCD, CLI, Portals
- Heterogeneous deployment on Multi-Arch.

BP is leveraging EdgeGallery as its upstream project to provide Edge Computing platform & management; developer platform/ App store.



EALTEdge Architecture



Telco Edge

EALTEdge Building Blocks

Platform Components (From EdgeGallery upstream)

MEP: Autonomous, Rich in Platform & network capabilities, Support heterogeneous architecture

MECM: Application orchestration, Application LCM, FCAPS, Policy driven closed Loop

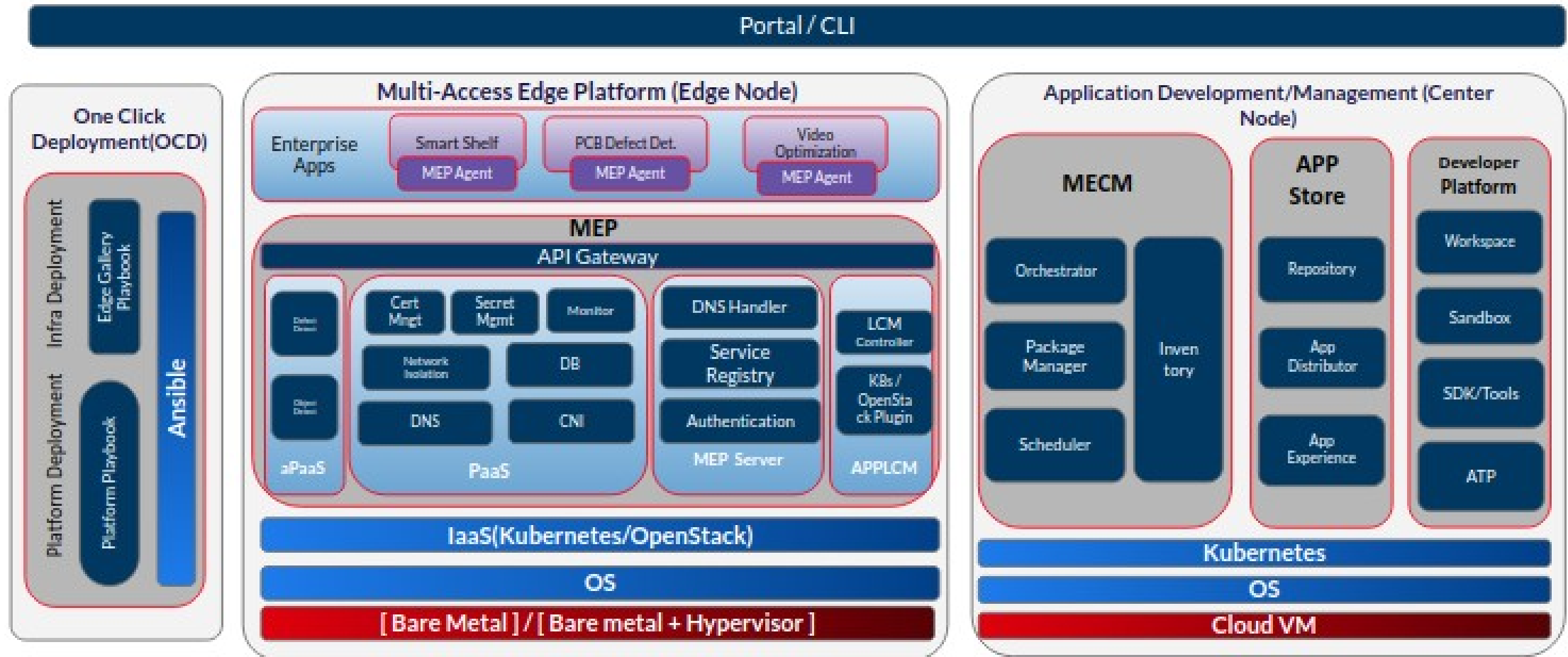
MEC Developer Platform: Provides Tool Chain, SDKs, APIs & Sandbox features for application development, packaging and testing.

MEC App Repository: Unified App Package Format, Standardized API Between Operator App Store and MECM

Enterprise specific Applications/Capabilities

(Developed/Integrated as part of BP): SmartShelf, PCB Defect Detection, Object Detection, Storage, Backup & Restore etc.

R5 Software Stack



EALTEdge R5 Enhancements

- ❖ Upgraded to EdgeGallery Dove release which has added following new features.
 - Edge Portal
 - Application test platform
 - UPF integration framework for DNS redirection and traffic rules configurations
 - VM based workload support (Partial)
- ❖ Smart Shelf application enhancement:
 - Enhanced UI
 - Notification and Alerts
- ❖ OCD scripts optimisations for easier future upgradation of EdgeGallery versions.

R6 Plan

Upgrade to EdgeGallery 1.3 release.

Enterprise use case & capability enhancements

- › Develop/Integrate more enterprise applications
- › Add platform capabilities for enterprise use cases

EALTEdge Links

EALTEdge Wiki:

<https://wiki.akraino.org/display/AK/Enterprise+Applications+on+Lightweight+5G+Telco+Edge>

EALTEdge Code:

<https://gerrit.akraino.org/r/admin/repos/ealt-edge>

Weekly meeting on every Monday @06:30 AM PST time.

<https://zoom.us/j/885308032>

Release 5 Documents

<https://wiki.akraino.org/display/AK/Release+5+Documentation+-+Enterprise+Applications+on+Lightweight+5G+Telco+Edge>



Thanks

