



LFN Developer & Testing Forum

# **XGVELA Operator Requirements**

**Saad Sheikh**

@SaadUSheikh

# Agenda

- **Why Operator Feedback vital for XGVELA success**
- **Pain Points of traditional CaaS model**
- **XGVELA architecture and Suggestions**
- **Prioritizing Operator Requirements for 2021**
- **2021 Operator Requirements collection status**  
**XGVELA**
- **Telco PaaS Use Cases**
  - **5G Private Networks**
  - **5G Edge Deployments**

# Agenda and Background

- **Voice of Telco Operator community alignment with XGVELA Progress**
  - Use 5G CNF deployment early experience and knowledge to drive XGVELA Release1(Q3 2021)
  - Collect Pain points of 5G delivery
  - Analyze E2E service requirements with two starting use cases of **5G Private and Edge** deployments to segregate XGVELA impacts on
    1. ONAP /OSM and Proprietary Orchestration
    2. CI/CD
    3. Integration with Live Network
    4. Hybrid Cloud Infra management
- **2021 Key Targets**
  1. Optimize XGVELA architecture function modules in vendor agnostic fashion
  2. Define and Integrate XGVELA specification with ANUKET (Avoid OverLaps)

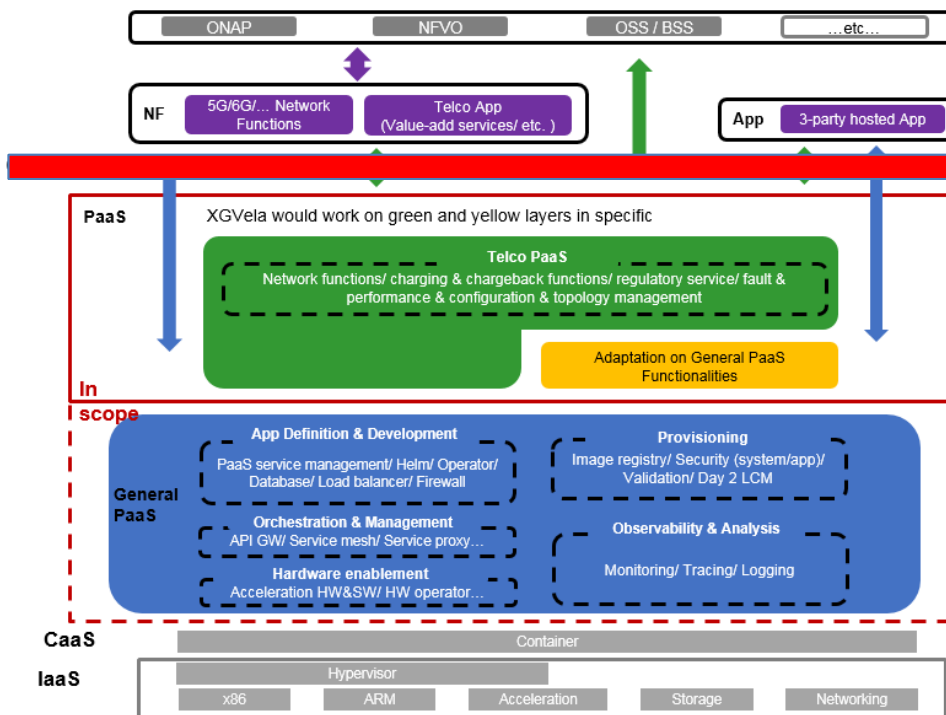
# Points under review in XGVELA Tech group

- **Enablement of 5G CNF and Edge Applications**
  - Enable Developer to prepare unique offering for each segment and vertical
  - Till now Delivery model is Vendor do Develop and Operator do Integrate and Test
  - Industry /Enterprise will need changes based on use case, traffic model and hyperscale's are already doing it today , this is a pressing industry issue for all operators now
- **Update required in NFV and MANO Architecture**
  1. ETSI thoughts .....> CNF and VNF are both same NF with only deployment differences ,need avoid new specs otherwise serverless , unicorns all will need new myriadal changes
  2. VNFM/CIM need combine
  3. Similarly NFVO and Cloud infra need align to deliver E2E use cases

# Pain Points of Traditional CaaS

- **The SDO CaaS Specs are lacking industry requirements**
- **Cloud Delivery Model changing from IaaS to XaaS**
  - IaaS model means a fat CNF
  - Telco DevOps needs a Telco PaaS specially on Monitoring and observability
- **SDK and Developer Features**
  - General PaaS lacks frameworks used by CNF's vendors today
- **Testing of New Features on fly**
- **Day2 Changes from 1months to 1week**
- **Evolve Telco Cloud/Adapters to General PaaS overtime by upstream**

# XGVELA architecture and suggestions



SLA/KPI

- Clear SLA/KPI need to define to benchmark Infra for CNF use

Hybrid Test

- Testing must consider both VNF and CNF
- Full stack for E2E test with ONAP, Application e.g CTP

Hybrid Test

- Test related tools and features not included and we want add them



# Prioritizing Operator Requirements

2021

- 1. Fast Development for 5G CNF and Edge CNF specially for verticals**
- 2. Hybrid Network management**
- 3. Telco DevOps**
- 4. Integration with Live Environment**
- 5. Logging**
- 6. Testing**
- 7. O&M requirements tailoring specially for verticals**

# Prioritizing Operator Requirements

No.	Scope	Requirement
1	Automatic Service Discovery	The Application can discover the available services automatically
2	Telco DevOps	The Tools integration by XGVELA should allow realization of full Telco DevOps both on Infrastructure layer and covering the NF Layer
3	LCM of complete Telco Service	The LCM should cover complete life cycle from requirements till commercial service, ideally it should cover both Infra and Telco Service e.g Scaling should not only include spin of new PoD but also to balance traffic equally across all infra resources
4	Logging and observability	Logging of complete events and real time observability is the top requirement for 5G and Edge applications and it must be supported by XGVELA
5	Work Flow Management	perform configuration management, logging, alarm, configuration management, tracing, etc. fully integrate cloud tool but also Work flow related tools like
6	Complete Tests	include both FR and NFR requirements to both test and
7	Common HIM	governed by common HIM shared between NFVi and
8	EPA	is the still the top requirement for Telco Service must be available by PaaS in an API driven manner
9	API definitions	in PaaS and ETSI is required to output the API model MOL so that applications are developed as per PaaS are no risk API models and definitions supporting it
10	Cross industry integration	together with ETSI, ONAP, ETSI is required to integrate all standards
11	EMS	The Telco PaaS Management capabilities should replace the EMS or add on management capabilities as needed by the NF's.
12	Service Packaging and onboarding	The PaaS capabilities must support the Packaging of artifacts as packages that can be onboarded using Cloud principles, The PaaS platform should be capable to analyze the package, can add the add-on for testing and support service onboarding.
13	Integration	The Telco PaaS must support both the SBI and NBI integration in the Telco live environment. The Integration should be flexible and should not require any customization
14	Hybrid Network Management	The PaaS management must govern common framework to manage both VM and Containers
15	Telco PaaS handshake with CNCF	XGVELA architecture Telco PaaS functionality and related adapters should be developed as CRD and feedback to community to cater in General PaaS in collaborative manner through release manner
16	Integration with CNCF conformance	Telco PaaS must be integrated with CNCF Conformance and RI2 standards as a baseline for OVP badging and certification

Refer to White paper Draft



# 5G Private Network

- **TBD**

# 5G Private Network

- **Edge**



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