

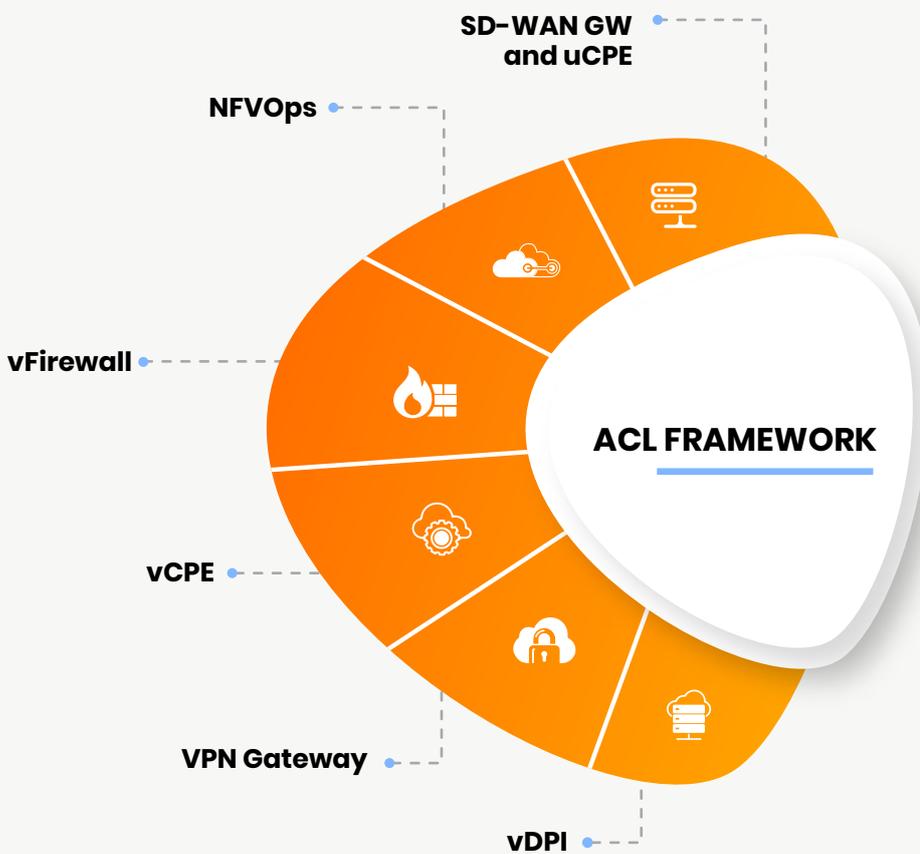
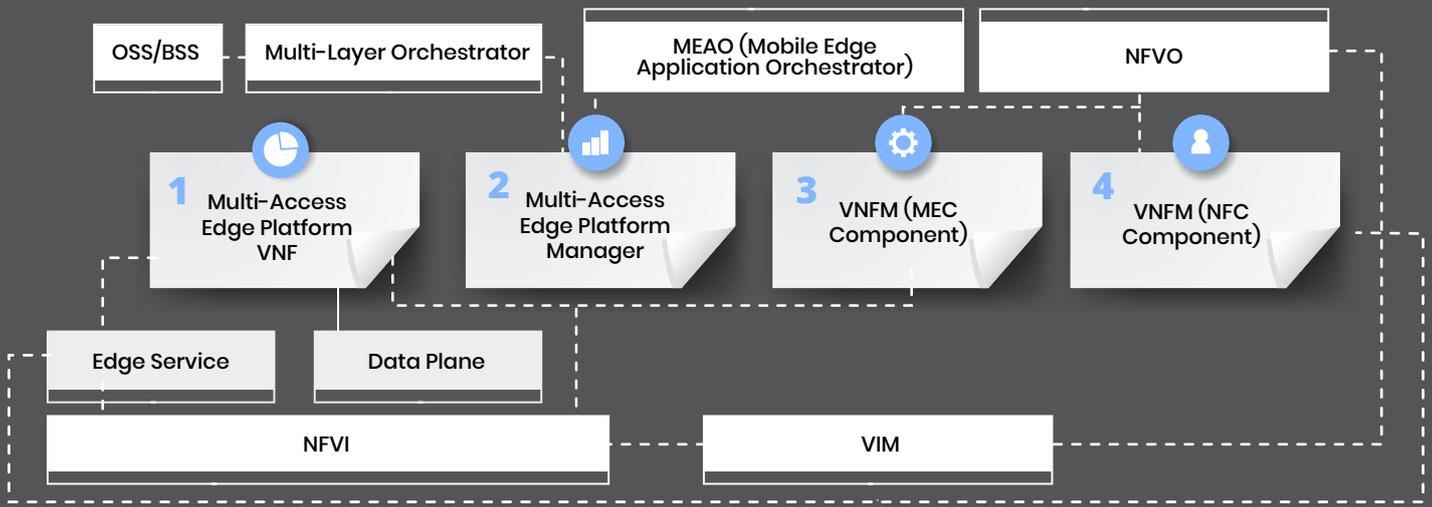


Multi Access Edge Computing

With new technologies from AI, IoT and 5G Networks advancing at a rapid pace, traditional centralized cloud computing can't efficiently handle the huge amount of data being generated. High latency is another problem as many of these next-generation applications will need millisecond response time. It's now become essential to extend the cloud to the network edge and virtualize the network functions. This will bring compute capacity closer to the sensors, base stations or mobile devices.

ACL Digital has been at the forefront of the SDN and NFV evolution, supporting telecom operators in design, development, testing, and deployment of virtualized solutions. ACL Digital's Network function virtualization as an edge solution leverages Radio Access Network (RAN) and edge uCPE/vCPE gateways to transform datacentres and extent cloud to the network edge. By empowering the cloud with SDN and NFV, telecom operators and service providers can implement third-party software and VMs to innovate their applications and services. ACL Digital Edge Computing framework is based on ETSI MEC based reference architecture mentioned below.





VIRTUALIZATION AT EDGE- ACL DIGITAL FRAMEWORK

ACL Digital framework will deliver customized VNF's and build scalable solutions for accelerated deployments. Our Capabilities includes delivering vCPE, vFirewall, vRouter, vVPN, & vDPI as Virtual Network Functions (VNFs) running on generic servers at Edge/ Data Centre as a Virtual Machine (VM) instance.

SDN as an EDGE SOLUTION

As edge computing is burgeoning along with rapidly increasing adoption of the Internet of Things, SDN/NFV deployed at the access network could support diverse requirements and agile service creation. To build cost-effective, agile networks and to enable rapid service creation & monetization, ACL Digital leverages open-source projects such as ONAP, ONOS, & XOS. SDN deployment provides telecommunication service providers production grade network and security stack for Edge cloud deployments. SDN controller deployment enhances many features of the 5G core & edge nodes including Service chaining at different types of edge sites and Common security policy enforcement for all nodes.

uCPE WITH SD-WAN AS EDGE ORCHESTRATOR



SD-WAN solution with Open Day Light controller enables efficient orchestration and management of WAN links and brings down the overall cost. This solution is based on the concept of uCPE with a centralized NFVI management layer. By decoupling infrastructure from applications, uCPE creates a flexible platform that can allow multi-vendor VNF solutions. This enables communication service providers to dynamically orchestrate all the network components and replace any VNF with another brand, or open- source alternative, on the fly.

EDGE CLOUD

Telecommunication Service Providers are using legacy NFVI infrastructure for Datacentre solutions. NFVI architecture cannot cost- effectively support the ultra- low latency and throughput demanded by 5G network deployments. Also, the current cloud based network to relay on centralized architecture. Cloud capabilities must be distributed across the network to build an edge cloud.



ACL Digital Edge Cloud Solution is based on microservices and Kubernetes infrastructure at the datacentre. The datacentre solution is designed for a far edge will distribute Applications and Virtual Network Functions (VNFs) across the layers based on their requirements and characteristics.



Kubernetes control plane orchestrates NFVI layer and build multi- cluster environment at edge datacentres. The solution enables automated service provisioning, service fulfillment and end-to-end quality assurance on the Edge cloud. Edge computing enhancements in an NFV-based ecosystem is achieved by integrating NFV and the MEC orchestrators. NFV orchestrator performs the actual deployment of functions on NFV Infrastructure while MEC orchestrator focuses only on controlling the edge applications and the edge platform management.



ACL Digital is a design-led Digital Experience, Product Innovation, Engineering and Enterprise IT offerings leader. From strategy, to design, implementation and management we help accelerate innovation and transform businesses. ACL Digital is a part of ALTEN group, a leader in technology consulting and engineering services.

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