Multi-access Edge Computing (MEC);
Terminology

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Foreword

This Group Report (GR) has been produced by ETSI Industry Specification Group (ISG) Multi-access Edge Computing (MEC).

Modal verbs terminology

In the present document "should", "should not", "may", "need not", "will", "will not", "can" and "cannot" are to be interpreted as described in clause 3.2 of the ETSI Drafting Rules (Verbal forms for the expression of provisions).

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1 Scope

The present document provides a glossary of terms relating to the conceptual, architectural and functional elements within the scope of work on Multi-access Edge Computing.

The purpose of this glossary is to ensure that all terminology defined in the present document is used in a consistent way by all ETSI MEC deliverables as well as in wider industry discussions on Multi-access Edge Computing.

2 References

2.1 Normative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

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The following referenced documents are necessary for the application of the present document.

Not applicable.

2.2 Informative references

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The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

[i.1] ETSI GS NFV 003: "Network Functions Virtualisation (NFV); Terminology for Main Concepts in NFV".

[i.2] ETSI TS 123 002: "Digital cellular telecommunications system (Phase 2+) (GSM); Universal Mobile Telecommunications System (UMTS); LTE; Network architecture (3GPP TS 23.002)".

3 Definition of terms, symbols and abbreviations

3.1 Terms

A

aggregation point: location in a physical network deployment intermediate between the core network and a number of homogeneous or heterogeneous network termination points (base station, cable modems, WLAN access points, etc.) which can act as a location for a MEC host
**application context:** set of reference data about an application instance that is used to identify it, enable lifecycle management operations and associate it with its device application

**application descriptor:** descriptor provided by the application provider which describes the application rules and requirements of a MEC application

**application package:** bundle of files provided by an application provider, to on-boarded into a MEC system and used by the MEC system for application instantiation, including package metadata (application descriptor, manifest) and artifacts (software image(s), e.g. VM image or container images, and optionally other files), or URIs to artifacts

**application provider:** entity that manages and distributes software-based services and solutions to customers

**application rules and requirements:** rules and requirements associated to MEC applications, such as required resources, maximum latency, required or useful services, traffic rules, DNS rules, mobility support, etc.

**client application:** application software running on a device (e.g. UE, laptop with internet connectivity) in order to utilize functionality provided by one or more specific MEC application(s)

**content provider:** entity (e.g. a web server, or a content distribution network) that provides content to consumers

**device application:** application running in the device that has the capability to interact with the MEC system via the user application lifecycle management proxy

**infrastructure provider:** entity that provides components into the network infrastructure ranging from compute elements and/or platforms to a software component (i.e. software component examples include security, virtualisation, controller, etc.)

**lawful interception:** action (based on the law), performed by a network operator/service provider/access provider, of making available certain information and providing that information to a law enforcement monitoring facility

**lifecycle management:** set of functions required to manage the instantiation, maintenance and termination of a MEC application instance

**MEC application:** application that can be instantiated on a MEC host within the MEC system and can potentially provide or consume MEC services
MEC host: entity that contains a MEC platform and a virtualisation infrastructure which provides compute, storage and network resources to MEC applications

MEC host level management: components which handle the management of the MEC specific functionality of a particular MEC platform, MEC host and the MEC applications running on it

MEC management: MEC system level management and MEC host level management

MEC platform: collection of functionality that is required to run MEC applications on a specific MEC host virtualisation infrastructure and to enable them to provide and consume MEC services, and that can provide itself a number of MEC services

MEC service: service provided via the MEC platform either by the MEC platform itself or by a MEC application

MEC system: collection of MEC hosts and MEC management necessary to run MEC applications

MEC system level management: management components which have the overview of the complete MEC system

mobile edge application: MEC application that can be instantiated on a mobile edge host within the mobile edge system and can potentially provide or consume mobile edge services

mobile edge host: MEC host that contains a mobile edge platform and a virtualisation infrastructure which provides compute, storage and network resources to mobile edge applications

mobile edge host level management: components which handle the management of the mobile edge specific functionality of a particular mobile edge platform, mobile edge host and the mobile edge applications running on it

mobile edge management: mobile edge system level management and mobile edge host level management

mobile edge platform: MEC platform to run mobile edge applications on a specific mobile edge host virtualisation infrastructure and to enable them to provide and consume mobile edge services, and that can provide itself a number of mobile edge services

mobile edge service: MEC service provided via the mobile edge platform either by the mobile edge platform itself or by a mobile edge application

mobile edge system: special kind of MEC system that is a collection of mobile edge hosts and mobile edge management necessary to run mobile edge applications within an operator network or a subset of an operator network

mobile edge system level management: management components which have the overview of the complete mobile edge system

Multi-access Edge Computing (MEC): system which provides an IT service environment and cloud-computing capabilities at the edge of an access network which contains one or more type of access technology, and in close proximity to its users

N

Network Functions Virtualisation (NFV): principle of separating network functions from the hardware they run on by using virtual hardware abstraction, as defined in ETSI GS NFV 003 [i.1]

network operator: organization that provides a network for the provision of telecommunications services

   NOTE: If the same organization also offers services it also becomes the service provider.

O - Q

Void.
resource: object with a type, associated data, a set of methods that operate on it, and, if applicable, relationships to other resources

NOTE: A resource is a fundamental concept in a RESTful API. Resources are acted upon by the RESTful API using the Methods (e.g. POST, GET, PUT, DELETE, etc.). Operations on Resources affect the state of the corresponding managed entities.

retained data: set of data elements for a specific subscriber/user related to a specific service transaction

S - T
Void.

U
user application: MEC application that is instantiated in the MEC system in response to a request from a user via a device application

user context: application-specific runtime data maintained by the MEC application, which is associated with a user of that application

User Equipment (UE): mobile equipment used to access the operator's mobile network and supporting applications that transmit IP packets over the mobile network

NOTE: User Equipment is originally defined in ETSI TS 123 002 [i.2]. For the purpose of the present document, the definition above is used instead.

V
virtualised resource: compute, storage or network resource provided by the virtualisation infrastructure to a mobile edge application

W - Z
Void.

3.2 Symbols
Void.

3.3 Abbreviations

0 - 9

3GPP 3rd Generation Partnership Project
5G Fifth Generation

A-F

ACK/ack ACKnowledgement
API Application Programming Interface
App/app Application/application
CAPEX CAPital EXpenditure
CAPIF Common API Framework for 3GPP northbound APIs
CCF CAPIF Core Function
DNS  Domain Name System
FTP  File Transfer Protocol

G
GPRS  General Packet Radio Service
GSMA  Global System for Mobile communications Association
GTP  GPRS Tunnelling Protocol
GTP-U  GPRS Tunnelling Protocol - User plane
GW  Gateway

H - J
HTTP  Hyper Text Transfer Protocol
HTTPS  HTTP over TLS
IETF  Internet Engineering Task Force
IP  Internet Protocol
ISG  Industry Specification Group
IT  Information Technology
JSON  JavaScript Object Notation

K
Void.

L
LAN  Local Area Network
LCM  Life Cycle Management
LTE  Long Term Evolution

M
MAC  Media Access Control
MANO  Management And Orchestration
MEAO  MEC Application Orchestrator
MEC  Multi-access Edge Computing
MEO  MEC Orchestrator
MEP  MEC Platform
MEPM  MEC Platform Manager
MEPM-V  MEC Platform Manager - NFV
MNO  Mobile Network Operator

N
NFV  Network Functions Virtualisation
NFVI  Network Functions Virtualisation Infrastructure
NFVO  Network Functions Virtualisation Orchestrator
NGMN  Next Generation Mobile Network
NS  Network Service
NSD  Network Service Descriptor

O - Q
OEM  Original Equipment Manufacturer
OSS  Operations Support System
PLMN  Public Land Mobile Network
QCI  Quality Class Indicator
QoE Quality of Experience
QoS Quality of Service

R
RAN Radio Access Network
reconfig reconfiguration
ref reference
req request
REST REpresentationational State Transfer
RFC Request For Comments
RNI Radio Network Information
RNIS Radio Network Information Service

S - T
TCP Transmission Control Protocol
TLS Transport Layer Security

U
UE User Equipment
UMTS Universal Mobile Telecommunications System
UP User Plane
UPF User Plane Function
URI Uniform Resource Indicator or Uniform Resource Identifier or Universal Resource Identifier
UTC Coordinated Universal Time

V
V2X Vehicle-to-Everything
VIM Virtualised Infrastructure Manager
VM Virtual Machine
VNF Virtualised Network Function
VNFM Virtualised Network Function Manager

W - Z
WLAN Wireless LAN
Annex A (informative):
Change History

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