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Future networks

IMT-2020 fixed mobile convergence functional requirements for management and orchestration

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Draft new Recommendation ITU-T Y.3134 (formerly Y.FMC-ReqMO)

IMT-2020 fixed mobile convergence functional requirements for management and orchestration

Summary

This Recommendation gives specification about IMT-2020 FMC functional requirements for management and orchestration in order to realize unified network management and resource orchestration functions in IMT-2020 FMC context. The functional requirements include general aspect, resource aspect, service aspect, user aspect and performance aspect of IMT-2020 FMC functional requirements for management and orchestration. The afore-mentioned functional requirements are beneficial to network operators and service providers to design, deploy and operate network in IMT-2020 FMC context.

Keywords

FMC; IMT-2020; functional requirement; management; orchestration

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IMT-2020 fixed mobile convergence functional requirements for management and orchestration

1. Scope

This Recommendation specifies IMT-2020 FMC functional requirements for management and orchestration (MO), the scope of this draft Recommendation includes the following aspects of IMT-2020 FMC functional requirements for management and orchestration:

- general aspect;
- resource aspect;
- service aspect;
- user aspect;
- performance aspect.

2. References

The following ITU-T Recommendations and other references contain provisions, which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published.

The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

[ITU-T Q.1762/Y.2802]	Recommendation ITU-T Q.1762/Y.2802 (2007), <i>Fixed-mobile convergence general requirements</i>
[ITU-T Y.2091]	Recommendation ITU-T Y.2091 (2011), <i>Terms and definitions for next generation networks</i>
[ITU-T Y.3100]	Recommendation ITU-T Y.3100 (2017), <i>Terms and definitions for IMT-2020 network.</i>
[ITU-T Y.3101]	Recommendation ITU-T Y.3101 (2018), <i>Requirements of the IMT-2020 network.</i>
[ITU-T Y.3110]	Recommendation ITU-T Y.3110 (2017), <i>IMT-2020 network management and orchestration requirements.</i>
[ITU-T Y.3111]	Recommendation ITU-T Y.3111 (2017), <i>IMT-2020 network management and orchestration framework</i>
[ITU-T Y.3130]	Recommendation ITU-T Y.3130 (2018), <i>Requirements of IMT-2020 fixed mobile convergence</i>
[ITU-T Y.3131]	Recommendation ITU-T Y.3131 (2019), <i>Functional Architecture for supporting fixed mobile convergence in IMT-2020 networks</i>

3. Definitions

3.1 Terms defined elsewhere

This Recommendation uses the following terms defined elsewhere:

3.1.1 fixed mobile convergence [Q.1762/Y.2802]: In a given network configuration, the capabilities that provide services and application to the end user defined in [ITU-T Y.2091] regardless of the fixed or mobile access technologies being used and independent of the user's location. In the 5G environment, it means to provide 5G services to end users regardless of the fixed or mobile access technologies being used.

3.1.2 fixed network [Q.1762/Y.2802]: A network that provides wire-based (e.g., copper, fibre) or wireless access to its services. The fixed network may support nomadism, but does not support mobility.

3.1.3 management [ITU-T Y.3100]: In the context of IMT-2020, the processes aiming at fulfilment, assurance, and billing of services, network functions, and resources in both physical and virtual infrastructure including compute, storage, and network resources.

3.1.4 mobile network [Q.1762/Y.2802]: A network that provides wireless access to its services and supports mobility.

3.1.5 orchestration [ITU-T Y.3100]: In the context of IMT-2020, the processes aiming at the automated arrangement, coordination, instantiation and use of network functions and resources for both physical and virtual infrastructure by optimization criteria.

3.2 Terms defined in this Recommendation

None.

4 Abbreviations and acronyms

This Recommendation uses the following abbreviations and acronyms:

AI	Artificial Intelligence
API	Application Programming Interface
BSS	Business Support System
CP	Control Plane
FMC	Fix Mobile Convergence
GBR	Guaranteed Bit Rate
IMT	International Mobile Telecommunications
LAN	Local Area Network
LTE	Long Term Evolution
ML	Machine Learning
MO	Management and Orchestration
MP	Management Plane
NFV	Network Function Virtualization
OSS	Operation Support System
QoE	Quality of Experience
QoS	Quality of Service
UNIC	Unified Network Integrated Cloud