

5G Solutions: MTC - eMTC

The communication type device-MTC or devices communication (M2M) allows direct connection between electrical equipment and phones along with central server or MTC application servers. eMTC, also called LTE-M or LTE-MTC, is a low power technology (LPWA). Using LTE base stations, it operates Internet of Things through less complexity of the device and ensuring increased coverage. eMTC is a natural extension of LTE standard.

Training method	Duration	Level
Lecture	1 day	Intermediate

Target audience

The course is intended for less experienced engineers in telecom and also non-technical staff, who would like to learn about technologies and solutions appearing currently on the market, and about the further paths of development.

Training contents

- **Introduction to MTC**
(M2M Market, Market Drivers, MTC Device, MTC Device Group, MTC Network, MTC Server, M2M Radio Access, M2M Architecture, M2M Core Network nodes MTC-IWF, HSS, PGW/MME, eMTC, eMTC Voice, eMTC DeCN, MTC Reference Points T4, T5a/T5b, S6m, MTCsms),
- **MTC communication**
(MTC Communication Models, Device 2 Device, Device 2 Server, Massive D2D, Non Roaming Architecture, Roaming Architecture Home Routed, Roaming Architecture Local Breakout, MTC Protocol Stack User Plane, MTCC Protocol Stack Control Plane, Call flow MT MTC communication inside public IP),
- **MTC service**
(MTC Service Architecture, MTC communication with NATTT, MTC Device Registration, MTC Device Paging),
- **enhanced MTC**
(eMTC Power Save Mode, Extended Coverage, Discontinuous Reception, Group Based MTC Features, Dedicated CN).

Prerequisites

The participants should have general knowledge on mobile networks and 4G network functionalities. Participation in "5G Introduction" course is recommended.