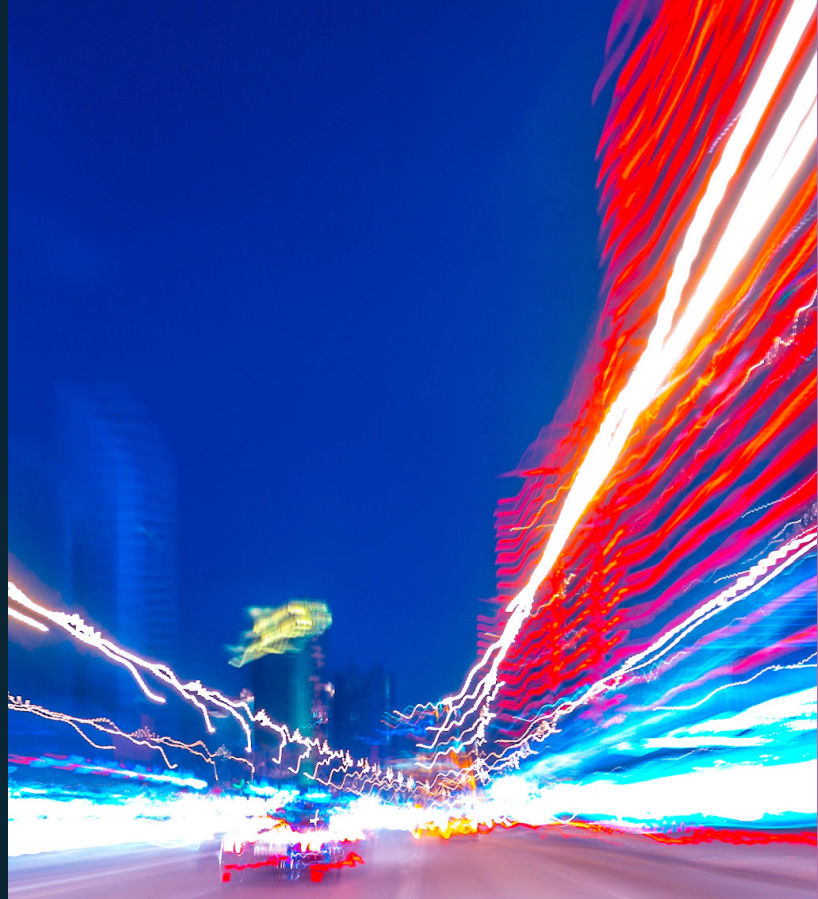




Excellent training, very good use of my time.



Watch our course intro video.



# Wi-Fi Offload

## Course Description

In a bid to improve both network capacity and data throughput, service providers are increasingly turning to Wi-Fi as a viable addition to their network infrastructure. This course explains how Wi-Fi offload is supported in terms of providing a seamless transition between the two radio technologies, tracking the architecture required, the mobility options available and the fundamental concepts of operation.

**Prerequisites:** LTE System Engineering, Wi-Fi System Engineering would be advantageous.

**1/2** day  
(LiveOnsite,  
LiveOnline)

**3** hours  
learning  
(OnlineAnytime)

**3**

CPD Learning  
Credits



Level: 2  
(Intermediate)

**This course will contain the following sections:**

## 1. Wi-Fi Offload Architecture

### Topic areas covered include:

- Wi-Fi Offload Architecture Fundamentals:
  - Drivers for Wi-Fi Offload.
  - Network Architectures:
    - Trusted Non-3GPP Access.
    - Untrusted Non-3GPP Access.
- Mobility Mechanisms:
  - Host Based Mobility.
  - Network Based Mobility:
    - PMIPv6.
    - GTP.
  - Multi Access PDN Connectivity.
  - Non-seamless Wi-Fi Offload.
- Network Architecture:
  - Trusted Non-3GPP Access (GTP):
    - UE, Access Point, TWAG, PDN-GW, HSS, AAA Server, PCRF, ANDSF.
    - Protocol Stacks and Reference Points.
- Roaming Architectures:
  - Home Routed.
  - Local Breakout.

## 2. Wi-Fi Offload Initial Procedures

### Topic areas covered include:

- Initial Procedure Fundamentals:
  - Bearer Models and Bearer Mapping.
- Network Discovery and Selection:
  - Network Discovery:
    - RAN Assistance Information.
    - ANDSF Rules.

## Wi-Fi Offload Initial Procedures (cont.)

- Accessing the Wi-Fi Network:
  - Joining a Wi-Fi Network.
- Initial Attach:
  - EAP Authentication (Part 1):
    - Detailed Signalling Evaluation.
  - Session Creation and Management:
    - Detailed Signalling Evaluation.
  - EAP Authentication (Part 2):
    - Detailed Signalling Evaluation.

## 3. Wi-Fi Offload Mobility and Interworking

### Topic areas covered include:

- Mobility and Interworking Fundamentals.
- Wi-Fi Mobility:
  - Access Point Channel Reports.
  - Wi-Fi Reassociation.
  - 802.11 Amendments:
    - 802.11k, 802.11r.
- Wi-Fi to LTE Handover:
  - Detailed Signalling Evaluation.
- LTE to Wi-Fi Handover:
  - Detailed Signalling Evaluation.
- Wi-Fi Offload and Roaming:
  - Home Routed.
  - Local Breakout.



**Watch a Sample  
Video Online**

**ITP**

**ITP accredited  
course**



**LiveOnsite, LiveOnline,  
OnlineAnytime**



## ENTERPRISE

Need to train a large group?

[mpirical.com/enterprise](http://mpirical.com/enterprise)



## TEAM

Training for a team?

[mpirical.com/team-training](http://mpirical.com/team-training)



## INDIVIDUAL

Looking for yourself?

[mpirical.com/individual-training](http://mpirical.com/individual-training)

## Managed Learning Services

As part of our managed learning service we can offer you and your organisation a full range of services including:

[mpirical.com/about-us/managed-learning-services](http://mpirical.com/about-us/managed-learning-services)

- Bespoke content and courseware development
- Product specific training packages, including product updates
- Dedicated trainers to understand your products and training requirements
- Managed training delivery services – administrative aspects including scheduling and liaison
- Customizable learning management system
- Traditional classroom, virtual classroom or video based online learning options

# NetX

The Mpirical Network Visualisation Solution: **NetX Bringing Telecoms to Life!**  
Imagine the benefits of having an entire mobile network available from your desktop.

- Where you can view a complete network map.
- Watch call flows across the network.
- Investigate network procedures.

NetX does this... and even more with our NetX customization options!  
NetX is not just a learning aid, it is a valuable resource in the day to day activities of any telecoms professional and has been spotlighted as such by the 3GPP.

Explore NetX further at [www.mpirical.com/netx](http://www.mpirical.com/netx)



+44(0)1524 844669



[enquiries@mpirical.com](mailto:enquiries@mpirical.com)

[www.mpirical.com](http://www.mpirical.com)