

## IP BASED TRANSPORT FOR UTRAN

### Course Description

Mobile operators worldwide migrate from ATM/SDH transport to IP/Ethernet based transport. Signalling and user traffic use a common transport technology based on the Internet Protocol standards. The main driver for this migration is the promised low cost, at least in urban areas. However, low cost should not impact service quality, which puts a number of QoS related requirements on the new transport infrastructure. Applicable transport network architectures, together with correct mapping of existing traffic and signalling priorities into IP and Ethernet handled service classes are crucial, in order to meet those requirements.

### Who should attend?

This course targets telecom professionals with experience from radio or transport network design. Furthermore, radio planners, transport and transmission planners, project managers and O&M staff are among the relevant participants. The participants will among other things, learn of the behaviour, characteristics and design principles of IP based transport applied on mobile radio access networks.

### Course content

GENERAL QoS CONSIDERATIONS IN MOBILE SYSTEMS

PROTOCOL STACKS FOR IP BASED INTERFACES IN UTRAN

TRANSPORT NETWORK REQUIREMENTS RELATED TO CAPACITY AND QoS.

- Design and dimensioning principles

IP TRANSPORT NETWORK TOPOLOGIES FOR UMTS ACCESS (Iub, Iur and Iu)

Layer 3 (IP) QoS separation for IP transport

- default QoS settings, DSCP settings, DSCP mapping and node classification requirements

Issued by <b>Carl Jonasson</b>	Date <b>8<sup>th</sup> of October 2009</b>	Checked by <b>Jesper Slettenmark</b>	Approved by <b>Björn Edlund</b>	Page <b>1 (2)</b>
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LAYER 2 (ETHERNET) QoS SEPARATION FOR IP TRANSPORT

- VLAN tagging with 802.1Q support
- Default mapping and node requirements for VLAN tagging

IP LINK DIMENSIONING EXAMPLES IN UTRAN

- single vs. multiple priority queues

NETWORK CONTROL AND NODE SYNCHRONIZATION IN IP BASED UTRAN

UTRAN SYNCHRONIZATION AND FLOW CONTROL IN IP BASED Iub

**Pre-requisites**

The participants should have good working knowledge on mobile systems and IP.

**Course length**

2 days

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