

Policy and Charging Control (PCC) Basics

“Policy and Charging Control (PCC) Basics” course describes the new policy control and charging functions added recently to mobile networks. The PCC architecture discussed during the lecture enables a precise control of packet traffic and accurate charging of individual services accessed by the users. The training presents historical background and subsequent evolution of the PCC system. Functionality of PCC components is discussed. New features available in each PCC release are presented. Required modification in the infrastructure and resulting benefits for the operator are investigated. Examples of service offerings available due to implementation of the PCC system are presented. For better understanding of the PCC functions, basic traffic cases are analysed.

Target audience

The course is intended for participants with no experience with PCC architecture. It is dedicated to technical as well as non-technical staff. The content should help the representatives of marketing and VAS departments to understand the multitude of new service offerings and charging models available thanks to the PCC system. It should be also interesting for the engineers working with the core network and charging, but not familiar with this new system.

Training contents

- **Introduction**
(evolution of charging in mobile networks, post-paid charging, pre-paid charging, difference between circuit-switched and packet-switched traffic, evolution of policy and charging control from independent solutions towards combined PCC system),
- **Basic Concepts**
(explanation of basic mechanisms – how to: control access to the services, ensure the desired QoS for services, precisely control charging on a service level, detect specific services applying sophisticated packet filtering criteria),
- **Architecture Evolution**
(functionality of PCC components, and interaction among them, new components added in each release of the system),
- **Operator Benefits and Opportunities**
(benefits for the operator resulting from new functionalities introduced in each PCC release, examples how those services may be used to create new marketing offerings:
 - tailor-made flat rate plans, personalized for subscriber individual needs,
 - platinum, gold, silver, bronze categories with different transmission speed and quotas,
 - application-based add-on packages like music, social media, news, based on subscriber preferences,
 - sharing of resources among many users – ideal offers for families and small businesses,
 - blocking of content – utilised in parental control service,
 - sponsored content – advertisements,
 - QoS control – prioritisation of premium-rate content, business subscribers ready to pay more for faster internet access,
 - time-based differentiation – cheaper rate during off-peak hours, short-time access for travellers,

- pay-as-you-go, multitude of service bundles offering faster speed, extra volume, or free services.)
- **Basic Traffic Cases**
(interaction among PCC components in different traffic cases)

Prerequisites

Basic telecommunication knowledge and eagerness to become familiar with the newest solution that will become crucial in future network evolution, service implementation and revenue assurance.

Training method

Theoretical lectures.

Duration

1 day

Level

Basic