

HTTP/2 in 5G

CONTENTS

This course presents features and usage of HTTP/2 protocol used for communication within 5G Core Network.

The course starts with an introduction of the basic HTTP features, methods, history. This is followed by description of various new features in HTTP/2 version of the protocol. The last part contains several topics describing use of the protocol in communication between Network Functions in the 5G Core Network.

PREREQUISITES

Basic technical knowledge of 5G networks and data communication is recommended.

Introduction and Evolution

- HTTP introduction
- HTTP history and transport
- HTTP methods and responses

HTTP/2 Features

- HTTP/2 streams
- Server push in HTTP/2
- Binary framing
- Frame types and formats
- Header flags and protocol settings
- Use of the connection preface
- Overview of HPACK header compression

HTTP/2 in 5G

- 5G network architecture
- Rationale behind selection of HTTP/2 for 5G
- RESTful APIs
- 5G Service Based Architecture communication principles
- Examples of NF services, operations, procedures
- Mapping of service operations to HTTP/2 methods and responses
- Example OpenAPI specifications
- Overview of registration, discovery, authorisation procedures
- Lists of mandatory request and response standard and custom headers
- Security of HTTP/2 communication in 5G
- Sample trace file snapshots