

Next Generation Core – Be smart in providing connectivity

Joint effort towards a novel 5G Core Network

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Various Use Cases and Requirements considered for 5G incl.

❑ IoT

- Small, constrained in power, massive number of devices
- Mobile vs stationary
- Reachability as optional requirement

❑ Mobile Internet

- Smartphone, INET communication, VoIP
- Mobile content sources (large content upload)

❑ Mission Critical

- Low latency, reliable communication
- V2X, automation/industrial
- Healthcare

Heterogeneity..

Resources...

Costs...

Network Management...

Slicing

Control-/Data-Plane Separation

Tailored Services Provisioning

Smartness for connectivity... How?

Diversity:

- Device types and capabilities
- Communication pattern
- Mobility pattern
- Energy constraints

Context

- Profile
- Capabilities
- Subscription
- On-demand preferences
- Statistics

Flexibility/Choice (Selection):

- Select from Control-Plane slices
- Select from Data-Plane slices
- Peering of Control- / Data-Plane slice (1:1, 1:N)
- Selection of Control-Plane anchors
- Selection of Data-Plane anchors

Tailoring (Configuration):

- Set up and use only required resources/states; applies to Control- and Data-Plane
- Connectivity fundamental
- Set up value-adding services per demand (location tracking, reachability, handover optimization, address continuity,..)



European Industry Collaboration Project – CONFIG

Convergent Core Architecture for Next Generation Networks

Objectives

- Convergence / Access Agnostic
- Functional Modularity as enabler for Slicing/Tailoring
 - Connection, Mobility, Flow Management, Security/AAA, Access Transition
- Context Awareness

Structure:

- Work Package 1:
Use Cases, Requirements,
Functional Architecture
- Work Package 2:
Solutions for Smart Connectivity,
Evaluation, Prototyping
- Dissemination & Standards impact

