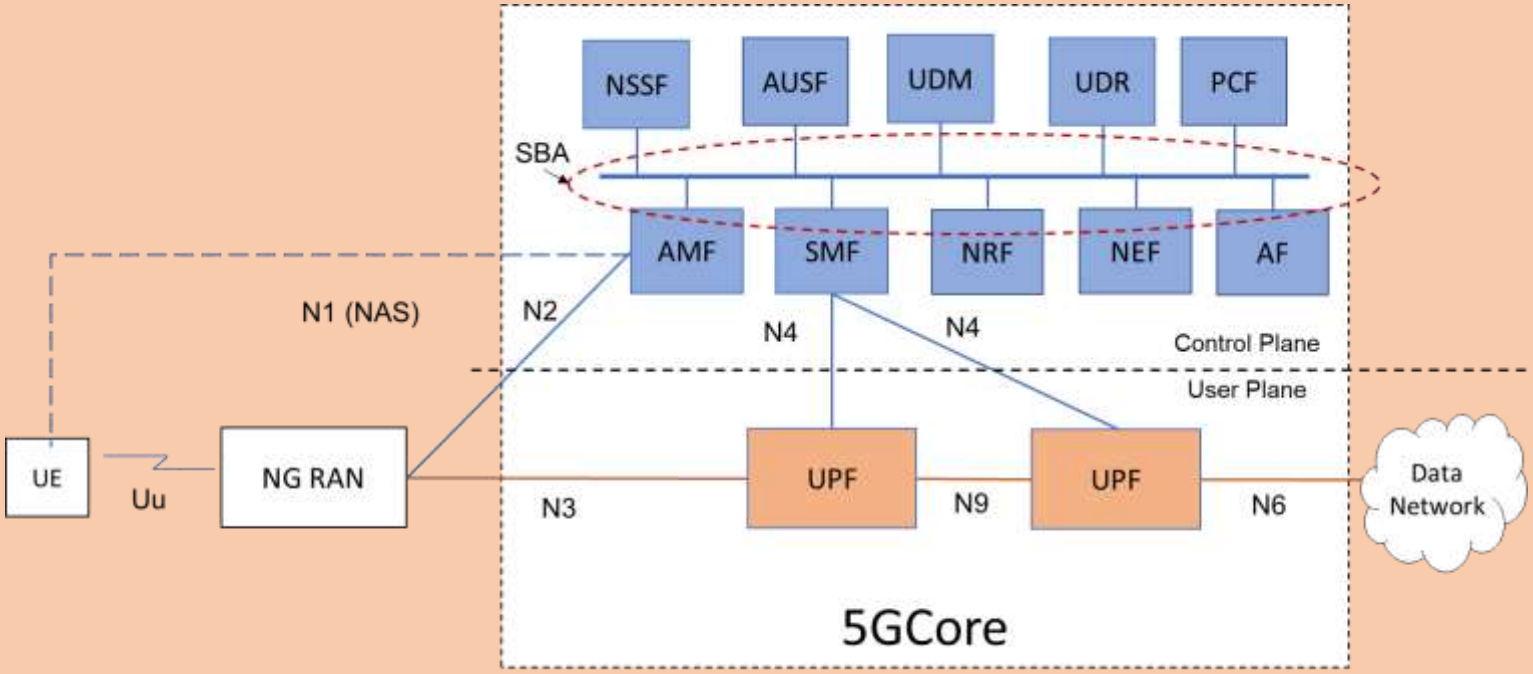
5G CORE

Fully Virtualized Cloud enabled Core Subsystem for the 5G Networks



- Developed at IIT Bombay, CEWiT, IIT Madras following the latest design principles and best practices
- Modular, software-based Virtual Network Functions (VNFs) on commodity hardware, in accordance with the principle of Network Function Virtualization (NFV)
- Cloud-native, fault tolerant VNFs, scalable on demand using standard cloud management tools
- Control plane over HTTP REST-based APIs, as per Service Based Architecture (SBA) paradigm
- High performance data plane over DPDK (Data Plane Development Kit) and programmable hardware

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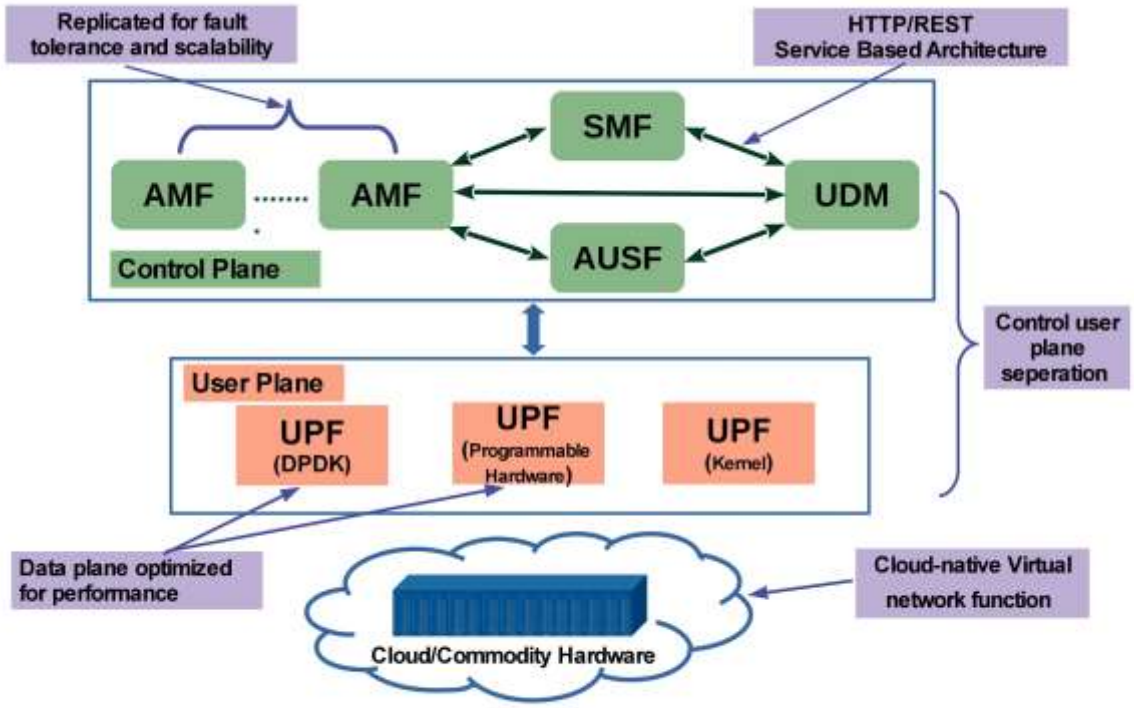
5G Core Design Principles



Network Functions developed in the project

- Access and Mobility Function (AMF)
- Session Management Function (SMF)
- UPF (User Plane Functions)
- Network Slice Selection Function (NSSF)
- Policy Control Function (PCF)
- Authentication Server (AUSF)
- Unified Data Management (UDM)
- Unified Data Repository (UDR)
- Unstructured Data Storage (UDSF)
- Network Repository Function (NRF)

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