CAMPUSGENIUS

The proven experts on Private 5G

The GeniusCore:

The GeniusCore is a reimagined 5G core, offering a comprehensive suite of virtualised network functions (NFs) that facilitate seamless deployment of end-to-end 5G solutions. Compatible with leading Network Equipment Providers (NEPs), GeniusCore ensures interoperability, granting unparalleled flexibility in 5G network deployments without sacrificing functionality.

At the heart of GeniusCore lies the CampusGenius 5G Core Stack, which introduces an API-centric, open, and cloud-native software solution compliant with 3GPP standards. This innovative approach minimises operational costs and enables deployment in both on-premise and cloud environments. By strictly adhering to a Service-Based Architecture (SBA), the GeniusCore ensures strict separation of control and user planes, enhancing privacy and eliminating scalability issues. With GeniusCore, businesses can embrace the new era of 5G services and digital experiences, unlocking limitless possibilities for network deployment and innovation.

5G-SA Control Plane

- Access and Mobility Management Function (AMF)
- Session Management Function (SMF)
- Network Repository Function (NRF)
- Policy Control Function (PCF)
- Authentication and Security Function (AUSF)
- Unified Data Management (UDM)
- Location Management Function (LMF)
- Network Exposure Function (NEF)
- Equipment Identify Register (EIR)
- 3GPP compliant SBI message bus, encrypted
- Integrated Subscriber Mgmt. via GUI, CLI or interfacing API

Radio Access Network Interfacing (Rel. 16)

- RAN vendor independent
- N1/Non Access Stratum 3GPP Rel. 16 compliant
- N2/NGAP 3GPP Rel. 16 compliant
- Radio specific interfacing for selected vendors

User Plane

- UPF in software only or with HW acceleration
- N4/PFCP 3GPP Rel. 16 compliant
- N3/N6 interface
- Fronthaul and backhaul gateway included

Core Management, Monitoring & API

- RestAPI Framework
- Grafana integration
- Graphical user interface for easy administration
- Configuration via RestAPI or CLI
- Visualisation of Events, KPI and Status
- Network Slicing (NSSF) available
- QoS control available

Deployment Options

- Bare Metal or virtualised - Docker, Virtual Machines (x86, ARM)
- Control - Userplane separation
- On premise, cloud or hybrid deployment
- Minimal hardware requirements