# 5G Core Network

JRC Smart 5GC

JRC Smart 5GC is an integrated 5G Standalone (SA) Core solution that supports standard 3GPP interfaces (N1, N2, N3, N4, N6, N8, N10, N11, and N12) for seamless access and core network connectivity.

Optimized for private networks, it features advanced analytics to streamline operations, enhancing management efficiency and network performance.
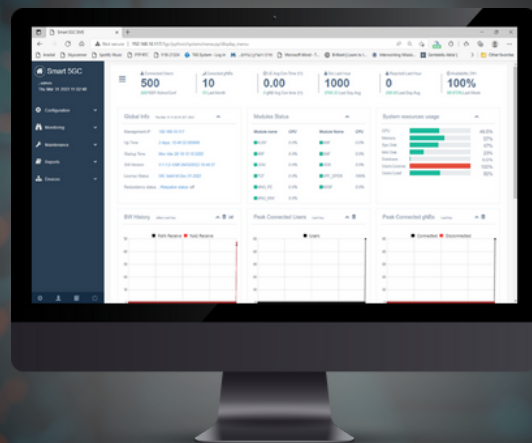
Key Features

- Simple configuration with no 5G knowledge
- Installed in single to several locations
- Independency: Support private network concept where each wireless coverage area can act as independent wireless network that operates without any connectivity to external network
- Service:
  - Multiple PLMN   - Multi DNN
- Slicing:
  - Select the Network Slice instance to serve connected UE
  - Determine the allowed NSSAI   - Multi slicing support
- IP allocation: Dynamically allocated by SMF from multiple pools or ranges, Static
- RAN agnostic (support multi RAN vendor network)
- Installed on standard off the shelf HW
- Virtualization: Can be implemented on any virtualization technology running on either private or public cloud
- Scalabilities achieve by adding HW

Advanced Functionalities

- Distributed UPF support: Multiple remote UPF network functions
- Dynamic IP allocation by UPF
- Smart analysis for total network status
- Integrated network debugging tools
- Optimized backhaul cost (distributed topology)
- No topology restrictions
- Enhanced network security
- Integrated RADIUS-AKA for Wi-Fi offload
- Periodic auto maintenance
- Active-Active & Active-Standby redundancy

Contact Us

✉ contact@jrclte.com   🌐 www.jrclte.com

Item	Description
Core modules	AMF, SMF, UPF, AUSF, UDM, UDR, PCF, NRF, NSSF, MNG_FE, MNG_MW
Policy	Internal policy setting (PCF)
TFT	Support standard filter capabilities
Handover	Idle mode support (exit and enter) Tracking area Update support Xn-based/N2 NG-RAN handover
Security	Ciphering and Integrity Protection of NAS messages SUCI decoding with protection schemes profiles A and B Support double layers security concept • Physical: AES-128 • Logical: AES-128/256 (application based) Support private SIM/USIM cards using Milenage
Redundancy	1+1 redundancy support (active standby) 1+1 redundancy support using NG-flex (active active)
Maintenance	On click full EPC backup and restore procedures Upload and download backup files Backup and restore procedures for UEs database Users export and import Automatic system statistics export Automatic users' profiles backup and backup export
Network	Simplified IP setting for RAN, Core and Management
Management	Web based GUI REST based API SSH rescue interface (recue user) Multiple levels of debugging facilities Comprehensive dashboard Connectivity statistics (per UE, eNB, system) Online system data usage Per UE data usage graph Optional system info display via Grafana