

WIRELESS CONNECTIVITY WITH FIBER-CLASS PERFORMANCE

Fixed Wireless Access

5G FWA

5G 
PRODUCTS



TELENTRA
Networks

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About TELENTRA Networks

TELENTRA Networks, an i2i Systems company, is a global Information and Communications Technology (ICT) provider specializing in next-generation core and access network solutions. Backed by extensive industry expertise, the company delivers a robust portfolio of advanced products tailored to meet the evolving demands of the telecommunications ecosystem.

TELENTRA Networks seamlessly integrates its proprietary core network products into both public and private 5G and LTE networks. Developed in strict compliance with 3GPP standards and specifications, these components offer maximum architectural flexibility, allowing for deployment either as a comprehensive, full-stack infrastructure or as independent standalone modules. Beyond its production-grade 5G Core Network Functions successfully deployed within Tier-1 mobile broadband operators, the company possesses profound expertise in PCF-PCRF solutions for mobile and fixed broadband, 5G Fixed Wireless Access (FWA), and private 4G/5G network deployments.

Customers



Partners



TELENTRA 5G FIXED WIRELESS ACCESS (FWA)

Wireless Connectivity with Fiber-Class Performance

In today's digital economy, instant and reliable connectivity is the backbone of business continuity. Traditional wired infrastructure presents significant hurdles: high CAPEX, long rollout times, and limited flexibility.

The **TELENTRA 5G FWA** solution changes the game. By delivering high-speed, carrier-grade broadband over a 5G core, we offer a powerful alternative to fiber for enterprises, campuses, residential users, and remote facilities. Whether used as primary connectivity or a secondary failover for branch offices, TELENTRA ensures reliable network performance while minimizing downtime.

The Power of TELENTRA 5G FWA

By eliminating the complexity of physical cabling, organizations achieve industrial-grade performance with unmatched agility:

- **Rapid Deployment:** Activate high-speed connectivity for new sites and temporary locations in days, not months.
- **Cost Efficiency:** It is plug and play and requires no cabling or installation. FWA per line cost is 20-60% that of fiber.
- **Business Continuity:** Built-in wireless backup ensures operations remain live during physical fiber outages.
- **Wide-Area Coverage:** Seamless connectivity for sprawling environments like hospitals and industrial parks.
- **Rural Connectivity:** Bringing gigabit-class broadband to geographically challenging areas.
- **Portability:** Your network follows you—simply move the 5G router to a new location for instant setup.

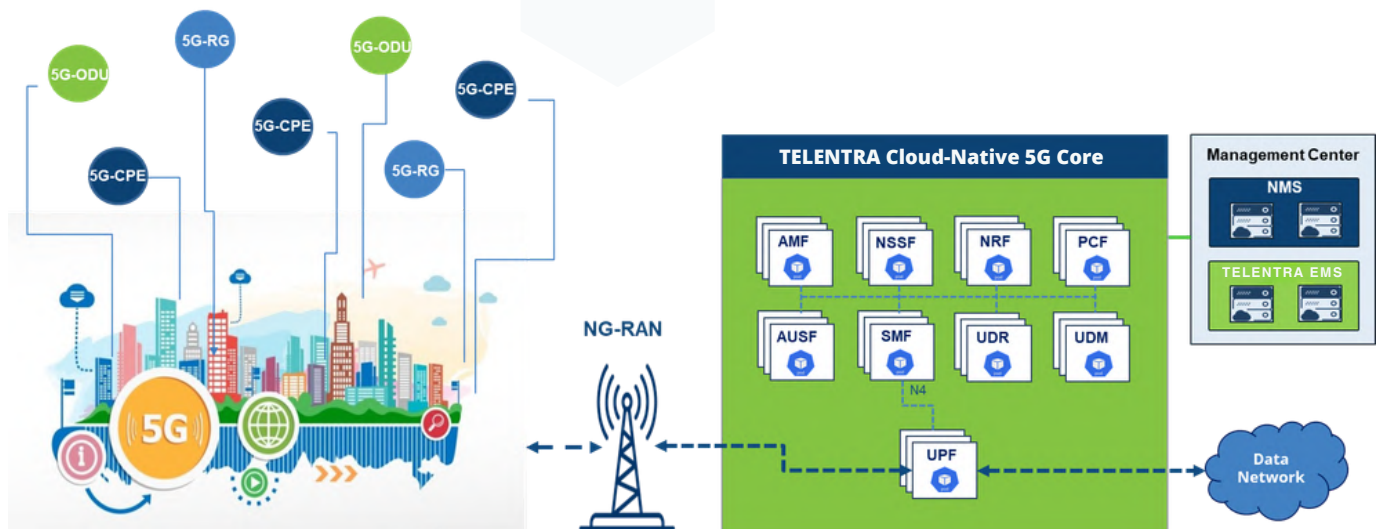
Flexible TELENTRA FWA Deployment

The TELENTRA FWA solution is anchored by a carrier-grade, **3GPP Release 18-compliant, Cloud-Native 5G Core (5GC)** Network Functions, managed via the intelligent **TELENTRA Element Management System (EMS)**.

The solution leverages existing public infrastructure while maintaining service integrity. TELENTRA provides a full or partial 5G Core stack (e.g., AMF, SMF, and UPF) to handle FWA-specific sessions. Traffic is anchored via:

- **Slice-Based Routing:** Utilizes Network Slicing to steer FWA traffic through the TELENTRA Core, providing dedicated virtual networks with guaranteed SLA throughput.
- **DNN-Based Routing:** Utilizes unique Data Network Names (DNN) to route FWA traffic through the TELENTRA Core, providing customized policy control and targeted QoS.

TELENTRA 5G FWA Deployment Model



Hardware Ecosystem & Integration

TELENTRA FWA infrastructure delivers fiber-equivalent KPIs without trenching. The solution seamlessly integrates with existing enterprise hardware through a flexible ecosystem:

- **5G Outdoor Units (ODUs):** High-gain antennas for industrial sites and challenging RF conditions.
- **5G Customer Premises Equipment (CPE):** High-performance indoor units for enterprise offices.
- **5G Residential Gateways (5G-RG):** User-friendly devices for fixed wireless subscribers.

Built on 3GPP Rel. 18 standards, the TELENTRA 5G Core ensures seamless **interoperability** with any 3GPP-compliant **RAN** vendor, eliminating vendor lock-in.

The 5G Advantage: Wireless Without Compromise

The TELENTRA FWA infrastructure delivers fiber-equivalent KPIs without trenching or cabling:

- **Ultra-High-Speed Broadband:** Supports bandwidth-intensive applications such as 4K video conferencing and large-scale data transfers.
- **Ultra-Low Latency:** Essential for gaming, video conferencing, and real-time cloud applications (sub-1ms latency on UPF and sub-10ms overall response time).
- **Industrial-Grade Resilience:** Advanced beamforming and 5G NR technologies ensure stable connectivity, even in high-interference environments.
- **Guaranteed Service Levels (SLA):** Network slicing enables dedicated resource allocation for mission-critical traffic, ensuring consistent performance regardless of public network congestion.

Why TELENTRA?

TELENTRA provides system integration and technical guidance throughout the deployment lifecycle, preserving the operator's ownership of radio and site assets while leveraging our proven 5G Core expertise to ensure a high-performance, streamlined rollout with clear accountability.

- **Proven 5G Core Expertise:** Market-tested, carrier-grade stability.
- **Cloud-Native & Scalable:** Grow your network on-demand.
- **RAN Vendor Neutrality:** Deploy with any 3GPP-compliant radio vendor.
- **SLA-Ready:** Guaranteed resource allocation for mission-critical traffic.

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