



INSTALLING
RELIABILITY



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SATCOM SYSTEMS & SOLUTIONS

PORTABLE CELLS FOR LTE OVER SATELLITE



The efficiency of military, border control and disaster relief and emergency organizations is heavily dependent on the communication capabilities within and beyond each entity. Their network-centric operations require a communication network supporting today's command, control and information services. Mobile communication is one of the most mission-critical assets in this structure since it enables exchange, from voice to video, between command and field forces.

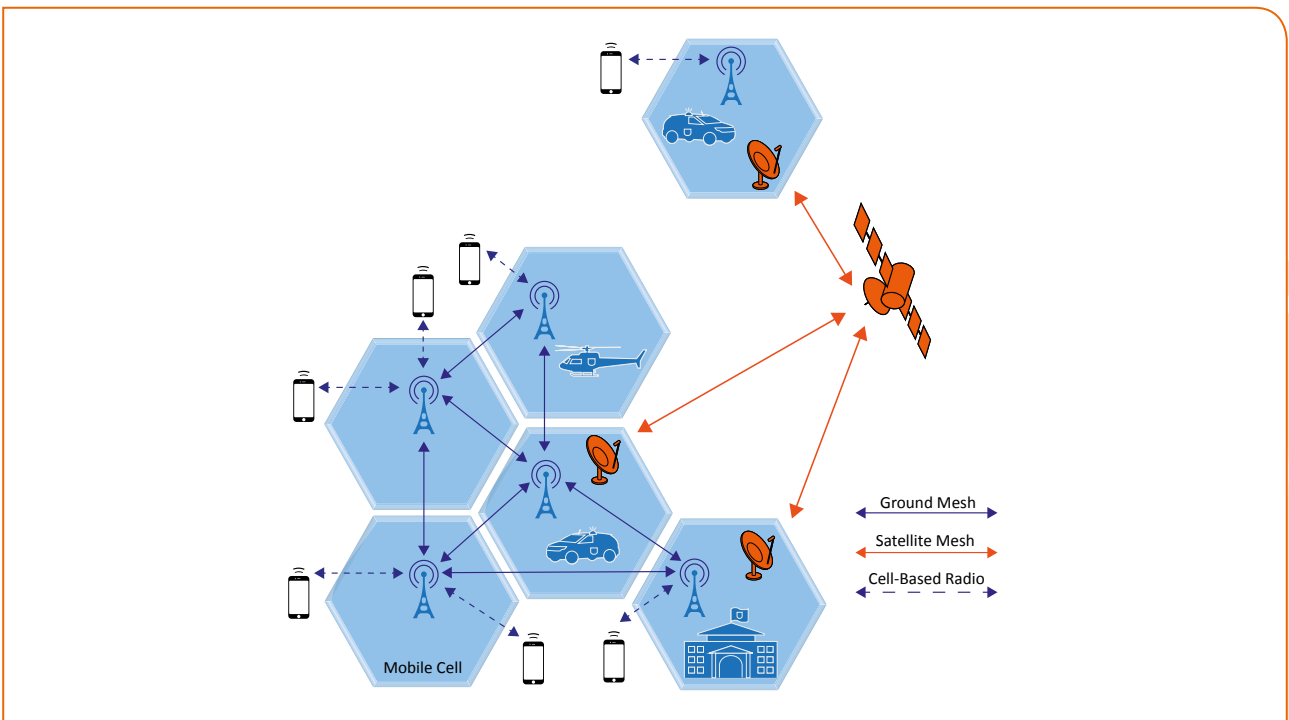
Many of these organizations, such as border control, typically operate in areas with little to no communication infrastructure. The challenge is to deploy and connect cells in these areas where terrestrial connections are not available and line-of-sight communication is too inefficient due to the topography and CAPEX for large communication towers.

Today more organizations rely on mobile portable (backpack, vehicle) LTE solutions for local coverage of critical missions. At mission outset, local switching functionality of an initially isolated LTE cell is mandatory. When communication demand grows, more cells need to be interconnected to provide cell-to-cell communication. All cells within this LTE network are connected with high-speed data links, which could be terrestrial fibre connections (where available), microwave or satellite communication links.

SKYWAN offers the ideal satellite communication solution for challenging field locations and crisis situations. The SKYWAN system's full meshed topology enables highly-efficient, dynamic and flexible communication between the LTE cells and the Core Network. It offers short set-up time of an operational LTE cell without the hassle and cost of engineering LOS connections or digging in miles of cables. SKYWAN's single hop cell-to-cell connectivity optimises the satellite backhaul to its absolute minimum, resulting in the lowest CAPEX and delay.

KEY FEATURES & BENEFITS

- Plug and Play for rapid deployment
- Direct Cell-to-Cell communication
- Advanced Quality of Service system delivers minimum jitter and exceptional voice quality (e.g., MOS 4.0@G.729)
- Multiple built-in redundancy for failsafe network operation



CELL-TO-CELL COMMUNICATIONS IN ONE LTE NETWORK VIA GROUND OR SATELLITE LINKS

SKYWAN is a multi-frequency TDMA satellite system that allows flexible bandwidth allocations within milliseconds, thus enabling quick network response times and the most efficient use of the space segment.

SKYWAN FOR ISOLATED LTE CELLS

SKYWAN's rapid deployment and mesh links easily and transparently expand the reach of an LTE network where terrestrial connections are not present or economically feasible. New cells can be seamlessly added to the network, so it grows in sync with the number of users.

SKYWAN MULTI-APPLICATION PLATFORM

SKYWAN offers an additional advantage as the perfect transport medium for other IP applications, thus providing

an all-in-one solution for remote site communications. The advanced Quality of Service features of the SKYWAN system triage mission-critical data or latency critical data with highest priority while other data are forwarded as bandwidth becomes available.

SKYWAN-ENHANCED LTE CELLS

A fully autonomous LTE cell is available for mobile rescue teams. This compact form – fitting in two backpacks – features a manpack SKYWAN terminal with an LTE cell.

Field upgrades, such as a larger antenna or additional cells, do not require SKYWAN replacement.

SKYWAN is the perfect solution for portable LTE Networks operating in communication-challenged areas.



SPT 600 M: EXAMPLE OF A MAN-PORTABLE INTEGRATED TERMINAL FOR AD-HOC CELL-TO-CELL INTERCONNECTION

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