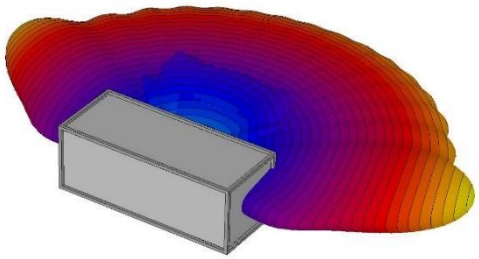
Integrated antenna walls - reliable connections inside

Intlog Oy's new mobile modular structures are equipped with the StealthCase technology that improves the quality of signal reception and thus provides reliable mobile connections within mobile spaces.

The StealthCase technology is integrated directly into wall panels providing passive, long-lasting and maintenance-free connectivity enhancement throughout the lifecycle of a modular structure. The antenna wall acts as a passive signal bridge providing efficient two-way communication between the interior and the outside world. The solution supports all commonly used mobile phones network technologies.

Wireless communication devices require a high-quality signal levels to function. The metal surfaces and frames of the walls reduce the strength of a signal penetrating the walls, and this seriously harms the quality of wireless connection of devices inside. Antenna technology integrated into wall structures allows connection to base stations even when the base station is not located in the immediate vicinity of a mobile device. Minimum working distance to a serving base station is increased up to ten folds when attenuation from the walls is reduced.

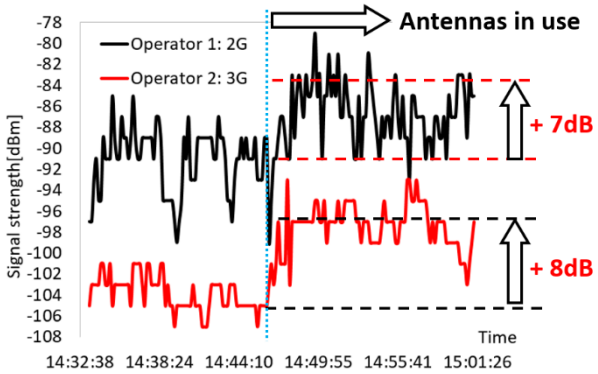
The metallic wall panel integrates StealthCase antenna technology that converts the entire wall to a passive repeater. The wall structure receives the signal from all around horizon and redistributes it to every corner of a modular structure.



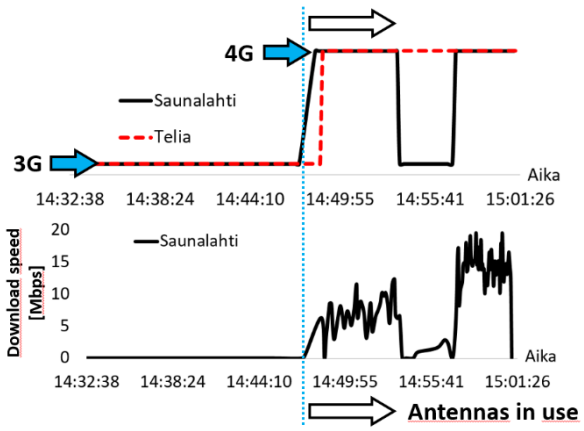
For each antenna wall there is a wide receiving pattern in the horizon.

The behavior of the mobile network is always location- and time-dependent. The StealthCase technology can substantially extend the distance from which external base stations are still usable by mobile devices within modular structures.
The advantages of the passive repeater are highlighted especially in the location of weak signal levels where connections are often interrupted and data transfer is unavailable or the transfer speed is low.

The real-life measurements in the low signal areas have shown significant improvement of signal levels within a container. Improved signal levels had a notable effect in to overall network quality and data rates.



A clear improvement in the performance of 2G and 3G signals when the antennas were enabled.



Graph shows how two test phones switched to a 4G and data transfers were initialized only after antennas were uncovered.

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