The Importance of Connection Reliability

Much of life relies on connections whether it be human, transport, media and so on. In the past 30 years cellular connections have exploded, whilst going through a number of technology generations from 2G to today's 5G. Over that period a heavily based consumer offering and infrastructure has latterly developed to accommodate the needs of industry and embrace the internet of things. Remote locations are no longer subject to having the expense of cables needing to be laid as the only communication option.

During this time advances have been made in the quantity and speed of data, and media that can be transferred, transforming businesses and peoples' lives, so much so that cellular is now an essential part of daily life. However, there are many aspects that go in to making a reliable connection, and it certainly
isn't something that can be assessed simply by the number of bars on a mobile phone.

There are many mobile network operators across many countries and regions of the globe, how do you plough through this minefield to determine what best suits your business or your customers?

Then there are so many parameters within cellular communication that determine reliability, not only the power of a signal, but also the quality of signal, the amount of interference, the cell towers encircling an area, with their differing levels of performance due to the distance they are away. There can also be buildings blocking a clear line of sight or a close tower mast that in fact, whilst visible, is actually pointing in the wrong direction.

It's true to say that the density of cell towers are far more prevalent in urban areas than rural areas, but this also means more buildings and obstacles that may hinder transmissions or cause signal reflections.

With such a complex mix of variables it is easy to default to thinking that if a signal is received on a mobile phone at a certain site at a certain time, that everything is fine for both signal reliability and choosing a network operator…… and it might be, but this would be more by luck than judgment. It's an assumption made in a snapshot of time, and yet the circumstances and variables involved in cellular communications mean it could be like looking at a calm sea on a sunny day and never expecting that storms will occur.

The reality is that all sites are of their own individual make-up, and the environment and circumstances surrounding them cannot simply be generalized or taken casually in a snapshot. Mistakes can be costly if an area does not have continuous and reliable connectivity, affecting business performance, creating down-time and generally producing inefficiency and frustration.

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What is required is for a detailed individual picture to be built up of a prospective site, especially those that are of a “green field” nature or subject to installation of new equipment. This individual picture can be obtained through a clever cellular network analyser, the SNYPER-LTE Graphyte, part of Siretta’s leading SNYPER family of cellular network analysers.

The Graphyte can be left in a fixed location to perform repeated cellular surveys over a user selected period of hours or days to get the true feel of the surrounding cellular landscape, quickly crunching through its vast amount of data to provide decision making charts and graphs that can determine the most suitable mobile network operator or re-assurance that a preferred MNO can be selected. Another great feature within the analysis is the “visibility” factor i.e. the number of times a base-station is seen within a set of surveys. It maybe that a base-station looks great because it shows a high signal strength but it may only have been visible for say 20 surveys out of 100 taken (i.e. 20% of the surveying session), so not a base-station to be relying on for your network decision.

SNYPER-LTE Graphyte is a real “workhorse” of a cellular network analyser, and coupled with Siretta’s powerful storage and mapping portal, CloudSURVEY, you have all you need to make informative decisions for remote deployments.

If you would like to know more about SNYPER-LTE Graphyte then please download our brochure from the following link: https://www.siretta.com/graphytev2 SNYPER-LTE Graphyte is a real “workhorse” of a cellular network analyser, and coupled with Siretta’s powerful storage and mapping portal, CloudSURVEY, you have all you need to make informative decisions for remote deployments.

Or to find out more about our cellular network analysers visit our website at https://www.siretta.com/products/cellular-network-analysers/

If you wish to know where to purchase a SNYPER then please check out our network of distributors by clicking here: https://www.siretta.com/where-to-buy/