

XCellSite Validation



TREAMEOW

Today, mobile network operators face severe cost pressure on their operational processes resulting in outsourcing of costly and time consuming in-house tasks to subcontractors.

One prominent example is the complete outsourcing of Civil Works in regards to installation, consolidation and local maintenance of RAN transmitter sites. Here, construction and tech implement the mobile network throughout the country.



The drawback of outsourcing crucial tasks however is loss of control. A multitude of measurement devices and tools lead to non consistent results and to the impossibility of implementing automated processes that would speed up work. It may take days for subcontractors feedback to reach the headquarters network implementation and optimisation department. This is where XCellSite comes into place.



Why do you need the solution?

XCellSite significantly accelerates the site validation process. Test acceptance data of new or changed sites is available immediately for site validation and optimisation.

XCellSite APP gets up-to-date network data and guides even non specialists through the acceptance procedure.

The reference platform is completely agnostic towards network equipment vendors. All network sites are evaluated according to the same rules, which is the base for reliable and automated analysis.

Operator studies showed overall time savings of more then 50% after deploying XCellSite.



Site Validation Workflow

Technicians may load up-to-date site information from the network database or may capture parameters of any existing site, which could also be a "site of a competitor".

XCellSite camps on the cell, to guarantee that in fact the correct sector and technology is tested which proves that the site is build according to the planned data. If not, XCellSite alerts inconsistencies, cross feeder and even overshooting cell situation, that would cause severe coverage issues. Getting this information allows technicians to verify installation, cabling or configuration issues immediately, increasing the percentage of error free delivered sites.



For each cell, sector and layer, technicians perform service oriented site validation tests such as outgoing calls, incoming calls, VoLTE calls, emergency calls and measurements of latency and data throughput. Predefined quality thresholds indicate whether a particular test was successful or not.

After each successful sector validation, results are uploaded to the X-server, buildingup the acceptance report.

Once test results are uploaded, they are immediately available for site acceptance confirmation by the network operator, being enforced to trigger corrective actions and further network optimisation immediately.

Examples of application

- **1**.Transmitter Site Installation, Rollout and Assessment
- 2. Radio Network Consolidation
- **3.Site Maintanance**

Technical Solution

Xperience Cell Site solution is based on a Streambow's highly-scalable Probe-Server Architecture. The probe is a smartphone app which guides the user through the testing process comparing measurements against a pre-defined set of performance thresholds. Once these criteria are met, the Cell Site is considered validated and ready for service. At the same time a validated acceptance report is uploaded to the Xserver and operator's backend system.

Solution highlights

- Synchronization with network planning data
- Ensures complete, high value and standardized tests onsite
- Equipment vendor agnostic, harmonized test results
- No more incorrect measurements XCell-Site locks to a cell when doing the test
- Visual positioning relatively to the antenna
- Alerts when planned and tested values or quality criteria do or do not match
- Cross feeder and overshooting cell alert
- Supporting 2G, 3G, 4G RAN
- Runs on economic Android mobiles to reflect end customer experience
- Lower investment costs for the field force leads to wider distribution among installation teams
- Tests are customer-oriented and contribute to a realistic view of quality and customer experience
- Complete support of workflow with optional creation of site validation work orders
- 50 % time savings for technicians onsite

Integration with other systems

- Internal workflow management server
- Cell site documentation server
- Network site server
- Network planning server

Xperience Cell Site Solution optimizes spent time and installation quality with regards to performance criteria, when validating 2G, 3G and 4G RAN transmitters onsite.



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