Digitata Networks Reference Case

Automated Mobile Network Auditing - Detecting Deactivated Cells

Is this thing switched on?

"Mobile Network Operator rolls out 5000 new LTE sites in record time" – does this sound like a familiar headline? Every year, operators worldwide roll out new sites at a rapid rate. This is generally great for subscribers in terms of coverage and capacity, but sometimes subscribers read the headline and wonder why they still have to stand in the corner of their garden to successfully make a call, or why calls are always dropping on their frequently-travelled route home.

With regular network audits, operators can ensure that new sites being deployed are configured with the correct parameter values. More importantly, operators can ensure, after the new sites have been optimised, that they are indeed activated and generating revenue.

At several mobile network operators where Digitata Networks' products were used to perform network audits, it was discovered that numerous cells in the network were in fact deactivated. A deactivated cell does not carry any traffic, which means it does not generate revenue for the operator.

Some of these deactivations are the result of rapid rollouts, but not all. A cell must be deactivated to change certain parameters. An overworked engineer could easily forget to reactivate a cell after changing the relevant parameter. Without regular automated network audits, this would only be picked up after monitoring KPIs or receiving customer complaints.

Digitata Networks' products, services and solutions are designed to assist telecommunication operators to regularly, automatically and independently audit the technical attributes of their network, leading to increased revenues, reductions in operational costs and simplification of operations.

Could your network be losing over $1.5 million a month due to deactivated cells?

When auditing the network of a single vendor at a Tier 1 operator, 5239 deactivated cells were detected. Of these, 3900 should have been deleted in the OSS after cutovers. 986 cells were flagged for further investigation and action. However, 353 of these cells had been deactivated in error...

Using the results of the audit, the operator was able to reactivate these cells, where required, leading to an immediate increase in voice and data traffic in those areas, which in turn resulted in an increase in revenue. This increase in revenue from the affected cells was estimated as follows:

	Voice Traffic (ERL)	Data Traffic (UL+DL) MB
Average traffic uptake per cell @ busy hour	3 ERL	50 MB
Average traffic uptake per cell @ day	15 ERL	600 MB
USD per min/MB	$0.10	$0.05
USD generated per day/cell	$90	$60
Cells that were activated	353	
Revenue USD due to activation	$31,770	$21,180
Estimated TOTAL additional revenue	$52,950 per day	

As per the above calculations, the operator had been **losing about $52,950 daily in revenue** due to the 353 cells deactivated in error.

That equates to approximately **$1.5 million dollars a month.**

Maximise revenue by fully utilising investments in network equipment.

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