Small Cells – Great Expectations?

An Operational Performance Perspective

The problem (2 slides)
Assessing impact (4 slides)
Final thoughts (1 slides)

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What’s the Problem?

Operate does not = £0

Simplified TCO

Focus on operational performance can get lost
What decisions do I need to make?

I think small cells will be my answer

That probably means a lot of volume

What is the right design to support performance?

How to I manage end user performance once deployed?

Topics for another day

I need a good ROI on capacity

I need to reflect this into my TCO

Start here

How can automation help me?

So how much headcount do I need?

Do I manage it like I have in the past?

Do I leave it alone to manage itself?

Topics for this presentation

Make explicit strategic decisions clear to the organisation
How do I manage end user performance?

End User Indicators  
Key Performance Indicators  
Performance Indicators  
Delivery team measures

Call Performance KPI's  
End User KPI's

Near Real Time Performance Processes  
Poorly Performing Cells Process  
Customer Complaints

Network Operations Processes  
Optimisation Department Processes  
Field Force process  
Spare Parts Process

Good performance is built on doing & measuring the right things
Leave it alone or operate it like the past?

Decide on the operate strategy early for each solution
So how much headcount do I need?

- An operator's estimated headcount for operational network optimisation

Traditional resourcing

Converting Heads to TCO
Standardise
Automate
Offshore ratio

Some operators require a huge change, others must remain competitive
How can automation help?

**Self-configuration:** automated network integration of new eNB, core connectivity & automated neighbour site configuration

**Self-optimisation:** auto-tune the network with the help of UE and eNB measurements on local eNB level and/or network management level

**Self-healing:** automatic detection, localization and removal of failures

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**Auto-connectivity / configuration**
- Dynamic radio configuration
- Automatic neighbor configuration

**Coverage and capacity optimization**
- Inter-cell interference coordination
- Mobility robustness & offloading

**Alarm correlation**
- Root cause analysis
- Sleeping-cell detection
- Cell outage compensation

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The industry has a growing ability to automate some processes

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Final Thoughts

• My personal view is that performance will be an important differentiator for operators but it is being currently down played when looking at TCO

• Resource requirements for optimisation will come under pressure. Difficult to scale existing hands on processes but final demand will depend on competitive operating point

• Automation needs to help with this challenge but there is huge momentum behind legacy tooling estates & processes to overcome

• Traditional operators will naturally want to be “hands on” the infrastructure or at least want the same assurances as being “hands on”

‘Great Expectations’ will only be realised through holistic management of performance
for a world in motion™