



Telecom World Insights

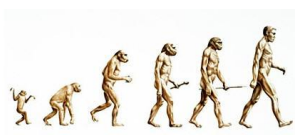
GLOBAL ANALYSIS LTD

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By Rodney Espinoza

Should UMTS/HSPA Operators jump into the 900 MHz band?



It is a matter of simple common sense and evolution. GSM will go away sooner or later, better sooner for the sake of the almighty Net Income

The answer is definitely YES, it is a MUST strategy to jump into the 900 MHz wagon in UMTS/HSPA.

The principal reason for that is COVERAGE as shown in the table 1.1

Additional benefits includes:

- Capacity Increase
- Throughput Increase
- Better Voice/Data Performance
- Cut APEX/OPEX expenses by up to 35% on new expansions

The Cons:

The cons of the implementation are mainly operational from the human resources perspective and the proper implementation of the 900 MHz layer, the following critical issues may be faced in the case of a wrong 900 MHz frequency layer deployment.

Excessive Overshooting, derived from a wrong planning, GSM network should not be used one-to-one, much less if it is a 1800/1900 GSM network, a proper simulation and planning is required to build and maintain an efficient 900 MHz UMTS/HSPA layer.

An excessive overshooting will cause:

- Capacity reduction due to high interference
- Overuse of the resources, including CEM (TX/RAX) + Transmission

- Degradation of the customer perception (900 MHz become dominant but its performance is poor)

HUMAN RESOURCES HIGH IMPACT. UMTS 900 MHz become another technology to consider in term of human resources. The departments affected the most are Transmission and Radio, O&M is impacted at 50% in comparison to the other two mentioned.

Deployment Strategy:

Deployment strategy is based on coverage layers and their planned inter-operability, UMTS 850 MHz layer will have a coverage foot-print up to 90% bigger than UMTS 2100 MHz in Dense Urban Areas, up to 50% in Urban Areas and up to 119% in Rural areas, therefore less sites are required and it is topology dependent.

Inside this issue:

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[IS THE IPHONE AS GOOD AS THE MEDIA WANT YOU TO BELIEVE?](#) 2

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Frequency	Percentage increase in coverage area per Node-B (km ²)			
	Dense Urban	Urban	Suburban	Rural
900MHz vs. 2100MHz	87%	44%	60%	119%

Table 1.1

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Low cost on implementation of 900 MHz, no additional antenna

Common Deployment Strategies:

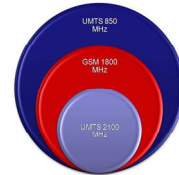
- Full Additional Layer
- Congestion Driven (Dense Urban)
- Coverage Holes Driven

Each strategy will require proper tune in terms of planning and

parameters settings as well as a different impact in terms of human resources.

In conclusion, not to jump into the UMTS 900 MHz wagon will be quite unwise, the savings are major and the benefits very attractive. The cons are manageable and not critical.

Below you can see the three layers of coverage, including UMTS 2100, GSM 1800/1900 in red and UMTS 900 in dark blue, which is similar than GSM 900.



“NOT TO JUMP INTO THE UMTS 900 MHZ WAGON WILL BE QUITE UNWISE”



The iPhone is not as magical as you may think. Read on before you even think about buying the media hip

Is the iPhone as good as the media want you to believe?

This is a difficult arena, I have tested first hand the iPhone and I should say that is quite fast, which is a really good thing considering the options, however, if you are a road warrior or a business man who depend on your Phone PDA like blackberry or Windows Mobile base one STOP, do not jump just yet, you may end up quite disappointed.

The iPhone lack a few things you may be used and consider essentials (beside the software of course, for me is enough, I just need my finance applications and Microsoft outlook in sync with my PDA).

These are my finding on missing things you may want to know:

- Removable battery (no removable battery no buy, bad deal)

- No office support
- No Microsoft Exchange Support
- No Wireless Syncing
- No Stereo Bluetooth
- No Mobile web a.k.a. WAP (1.3 or 2.0)
- No Mobile Java (J2ME)
- No Video calls
- No MMS
- No Email ability to save or view attached zip files
- Not possible to be use as modem with a PC (via Bluetooth)
- No advanced SMSs, like contacts (it just shows nothing when someone sends you a vcard)
- No Turn-by-turn navigation (almost any GPS-phone has something included, not just very-very

basic google maps mobile)

- **No Video recording (it can take only pictures, believe it or not)**
- No RSS reader
- Not any kind of system monitoring/management features to see what is really going on (apps running in background, open connections, GPS status etc).
- No video streaming (other than YouTube)
- No Clipboard, copy-paste
- Bluetooth communication is limited to the headset only (no file, contact etc transfer)
- Cont in page 3...



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“THE IPHONE IS LACKING VERY PRECIOUS FEATURES THAT NO PHONE IN 21ST CENTURY SHOULD BE MISSING. “



Maybe you should consider a serious Smart Phone or PDA Phone as the Omnia from Samsung or a good HTC as the Advantage. In the picture the Omnia. A beauty loaded with features and a 5 Mega pixels camera with flash

Is the iPhone as good as the media want you to believe? Cont.

- Battery life is no more than 2 days.

In conclusion:

If you are an operator you will get a lot of people to buy and profit from it. The media hip is very good, but it is just that, users are not getting enough features/quality for what they are buying, The iPhone is lacking very precious features that no phone in 21st century should be missing.

Once more time, if you are serious with your phones and you have a problem not having at least one of the 21 reasons I gave you not to jump into this 3G iPhone version, save the

money and get a sexy and attractive Samsung Omnia or a fancy HTC Advantage, it will cost a bit more or similar but you will get value for your money.

We will keep an eye on the mini iPhone to come in December, probably we will be surprised, although I really doubt it.



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