Xona Partners at MWC2014
Trends & Business Impacts

Xona Team

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The 2014 edition of Mobile World Congress was the largest ever with 85,000 in attendance from 201 countries, up by 18% over MWC 2013. The continued growth in attendance is representative of the accelerated expansion of the wireless communication industry since the inflection point in 2007 when the iPhone was first introduced to usher the era of mobile data services on an unprecedented scale. The doubts and uncertainties surrounding 3G networks, and the value proposition and use cases for data services that was characteristic of pre-2007 is probably known only to a minority of those in attendance. Today, with 230 commercial LTE networks in 88 countries and as we stand on the cusp of LTE-Advanced, there is no one overriding question, but rather many questions: how to monetize data services, how to deliver higher capacity, how to control costs and derive higher efficiencies and how to improve lives with mobile services. These and many other questions can sum up the main theme of the show: creating what's next.

In the lines below, we dig deeper than the Facebook purchase of WhatsApp, or Samsung launching the Galaxy 5 headlines of the MWC making, and synthesize our advisors' insights and takeaways on MWC and describe the general trends developing in the wireless industry.

1. Minimize operator dependency on vendors and maximize leverage: Operators feel they have been taken for a ride by vendors over the past decade, with various turnkey vendors' strategies, and technology deployment delays still prevail today.

2. Operators have acknowledged they must now pursue OTT partnerships as a clear strategy, as otherwise they will become irrelevant to the consumers, and this is perceived as a mortal threat.

3. Operators acknowledge they are stuck with current roadmap where big choices need to be made strategically regarding small-cells, cloud RAN and LTE upgrade direction.

4. Operators, who have maintained financial strength, are looking for selective international expansion outside of their home markets, as well as selectively looking into growing into adjacent markets – although without too much success so far. See Xona thoughts on this in The Internet Eco-system Value Chain.

5. Operators feel they had little choice in selecting and deploying a new technology. Relevant business models are now needed to leverage future roadmaps: "Please help us create new revenue streams" was the common request from most C-levels met during MWC.

6. The growing presence of Asian vendors reaffirms stronger market position. Judging by booth sizes, the infrastructure market centers on Samsung and Huawei, which is representative of their market lead. The Western vendors who did not make the correct decisions 5 years ago are now dying or dead.

7. M2M is prevailing, progressively though. Detailed use-cases are in existence. Industry verticals are being hit horizontally by IT and various businesses now realize it can no longer avoid having a dedicated M2M strategy Enterprise disruption is expected in the near term.

8. Key OTT players did not have a stand presence. Ecosystem players like Google, Apple, Facebook (except for the keynote), and Yahoo did not have direct MWC investment but all attended. Having said that, presence via their eco-systems (android as an example, were very much present). Conclusion is that CES is the preferred showcase venue and where new-service launch influence remains.

9   Mozilla OS is still making progress, the <USD$100 price point was well received and created noise around the MWC and media coverage. Android and other OS based devices also putting together strategies towards the lower end smartphone market.

10   Onboard SIM card memory size has enabled improved local storage and embedded application implementation for mobile devices. Gemalto, as an example, specifically had a great proposition on various SIM models.

11   The wider mobile application space is monetizing well in each vertical market and a direct correlation to the exploding mobile advertising revenue exists. Millennium media is doing 100million impressions per month as a headline example, with no slow down expected. Other examples include the various real time advertising online bidding eco-systems being pitched as the next large-scale revenue generator. See Xona thoughts on this in Private Cloud for Online Ads RTB.

12   Operators are moving towards self-controlled big data in-house. The mind-shift has occurred within operators who have realized both control and access to their own data is now possible with employed data scientists rather than outsourcing the function and losing the knowledge.

13   Large IT and systems integration players are putting a heavy push into various IT transformation projects, with a focus on migration towards various cloud models. Having said that, it seems that except for the large cloud providers, most of the others haven't put together the expertise required to execute in the field, and the market is very fragmented. See Xona thoughts on this in Brief Journey into the New World of Next Generation Data Infrastructures.

14   Kindle and other content-driven-tablets attacking the iPad in the USA market, with direct comparisons of performance versus price now being waved about. Watch for Europe and other markets to follow.

15   Social media is driving mobile adoption across older age groups. Time spent on these sites is now driving further advertising opportunities for all segments in both the developed and the developing world. Prepaid usage is expanding across the board.

16   Immersion of Google Glass and other HUD (Head Up Display) immersion technologies will require better RF planning tools, improved design (small cell) methodologies for indoor and outdoor mapping.

17   "Connected" city or "Smart" city definitions differ between say a Vodafone or Korea Telecom template and vendor template of societal integration around the city, car, home, etc.

18   With MWC attendance numbers up by 15%, Xona believes this fact will be noticed and policy thinkers in progressive cities such as Dubai and Hong Kong will act.

19   The Connected Car sector remains clouded by divergent interests. Car manufacturers and OEM's assessing how deeply their involvement will be in the IVI sector. Different approaches to vehicle security have been adopted within closed ecosystems versus more open API development programs. No middle ground agreed yet, with OEM partners experimenting.

20   Operators have wrestled back control of the data. New architectures and business models are changing to take advantage of this development. "Build your own CDN in-house" being the primarily example.

21   Industry shift of CMO driving customer-centric initiatives, such as real-time supply chain tracking and social analytics implementations – not by the CIO/CTO office.

22   Analytics was all over the place, with pretty much each vendor pitching an analytics solution. Having said that and digging more into it, it seems that this is a very native space, where little work leveraging Data Science models has been done, and where business value proposition still needs to be validated. See Xona thoughts on this in Data Science: A Practical Perspective.

23   Application developers are in demand across all each vertical market within mobile, representing continued excitement around the upcoming app-stores (Mozilla + others).

24   Indoor small cells are first to see deployment traction, but node or element management solutions are not operationally stable enough to deploy.

25   Service providers seem to be way more open to various active infrastructure sharing models, including small cells, cloud RANs, active DAS and beyond. This is mostly driven by economics and Xona expects a lot more of it moving forward, and through this building a strong foundation for a new generation of OTT driven MVNOs building on top of the sharing models. See Xona thoughts on this in Spectrum and Network Sharing Models: Trends & Business Impacts.

26   Wholesale business models are being sought in many countries; new MVNO solutions are being pursued. Connected Car MVNO solutions are of interest to regulators and manufacturers alike.

27   Payment technologies are exploding across the board. Direction and strategy vary significantly. Union pay is jumping out the blocks regionally to become a global player. Visa is investing heavily but their intent is not clear. MasterCard is privately wondering what to do in response. The market is still very fragmented, and the only major successes remain within the unbanked markets (such as M-Pesa in Kenya and various similar models in markets like the Philippines, Nepal, etc.).

28   Smart watches and similar devices are positioned as a market soon to explode, as timepieces become smaller and battery life improves. Having said that, Xona believes that this market is still 2-3 years away for mass adoption

29   The wider healthcare opportunity within M2M is becoming more obvious. There is an explosion of wearable devices which all need to be able to connect seamlessly and have greater medical accuracy and applicability. Companies of course will need to build volume as well as interoperability to drive down unit price. See Xona thoughts on this in Home-based Healthcare & Opportunities for Mobile Operators.

30   5G is here! Work has kicked off to define 5G mainly in Europe and Korea. While 4G technology focused on achieving higher speed, lower latency, higher spectral efficiency and lower cost for the network operator, 5G is promising to define technology from the perspective of the consumer. While we don't believe the industry can get away from headline news on capacity, we think this is a worthwhile direction to take. See Xona thoughts on this in The Path to 5G Mobile Networks.

Software defined networking (SDN) remains a major buzzword with advances occurring in the core network. This year and for the first time, virtualization of the RAN was on demonstration by a few Asian operators such as China Mobile and SK Telekom. We look increasingly to the trend of technological dominance by Asian operators who have proved to be pragmatic and forward looking on many measures.

31   It is also interesting to see most large IT and system vendor players pitching whatever was hardware as SDN software models, and in some cases, without a clear justification. SDN models introduction will be progressive starting in the data center, and progressively moving into the core of the mobile network, including the OSS, with other parts of the network arriving later.

32   Vendors actively demonstrated LTE-Advanced functions. The many twists on specifications, which are allowed and possible as standards define interfaces better than they do functionality, makes us wonder on the future carrier-vendor dynamics and intra-vendor dynamics in HetNets and multi-vendor networks which will be bound to get more complicated.

33   TD-LTE is more serious than ever and emerging as a real alternative for operators with WiMAX TDD spectrum. What's needed is the investment funding and sound strategy. Of course, a few more vendors into the ecosystem mix will help in raising confidence. Simultaneously, we see increased attention to combined FD-TD networks. We believe these dynamics can only help TDD spectrum owners.

34   60 GHz baseband solutions have debuted with solutions from at least 4 different companies. It has been a main attention grabber. This will be a space for much creativity and innovation similar to the ISM bands where Wi-Fi plays. The attention has been on mobile backhaul with consumer applications still further into the future.

35   The indoor service space will only get more complicated with a number of systems vying for dominance: DAS, small cells, centralized base stations (such as Ericsson DOT and Huawei SiteLamp) and Wi-Fi. The expanding LTE roadmap is bound to impact severely this space where new products and disruptive technologies are foreseen. Ultimately, evolution in business models is required to make for an attractive business case for all stakeholders.

36   Finally, it was very refreshing to wonder by the various country pavilions as they hosted a lot of their startups. Israel, Sweden, Japan, Korea, Russia, Turkey pavilions among others were fairly impressive in terms of innovation, as well as a number of others. Also interesting to see these various startups working in an environment that mimics and adapts some of the well know Silicon Valley models. See Xona Insight into this in A Foothold in Silicon Valley.

While the above points are far from being comprehensive of the entire event and industry, they do represent a glimpse of the market pulse. MWC remains an invigorating event where ideas can be exchanged and relationships are built that will help in driving future developments. As to what these developments will be, a keen eye for current developments coupled with a good understanding of the evolution of the industry can help in predicting, while leaving room for disruptions that occur occasionally.

Finally, congratulations to Barcelona and GSMA for hosting a top event. We believe it was the best ever. See you at MWC 2015 Barcelona!

Acronyms

3G	Third generation
4G	Fourth generation
5G	Fifth generation
API	Application program interface
CDN	Content delivery network
CoMP	Coordinated multipoint
DAS	Distributed antenna systems
FD	Frequency domain
GPS	Global positioning system
HUD	Headup display
ISM	Industrial, scientific, medical
IT	Information technology
IVI	In-vehicle infotainment
LTE	Long term evolution
M2M	Machine to machine
MVNO	Mobile virtual network operator
MWC	Mobile World Congress
OEM	Original equipment manufacturer
OTT	Over the top
RAN	Radio access network
RF	Radio frequency
TD	Time domain
TDD	Time division duplex

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PARTNERS

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