Shaping International Spectrum Policy

An interview with Tariq Al Awadhi, Executive Director Spectrum Affairs at the Telecommunications Regulatory Authority, United Arab Emirates
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The United Arab Emirates is at the forefront of spectrum planning and mobile telecommunications in the Arab World and, under the management of the Telecommunications Regulatory Authority (TRA), has released more spectrum for mobile services than any other country in the region[1].

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The UAE's foremost authority on spectrum management, Tariq Al Awadhi is a prominent figure in international spectrum planning and negotiation. An electrical and telecommunications engineer, Al Awadhi started his career with the incumbent telco Etisalat and then was seconded to mobile satellite service provider Thuraya, always in roles related to spectrum management. Groomed professionally over several years, when the TRA was established in December 2004, he joined as head of spectrum management, covering all aspects of spectrum at the national, regional and international levels. As the TRA's spectrum department expanded, Al Awadhi's role grew to encompass all international affairs related to telecoms, including work with the International Telecommunication Union (ITU) Council and the development sector. Currently he is chair of the Arab Spectrum Management Group (ASMG).

Last year, Al Awadhi played a pivotal role in international spectrum management as chair of the World Radiocommunication Conference 2012 (WRC-12), where he garnered sufficient support among ITU members in Europe, the Middle East and Africa (ITU Region 1) to allocate a 'second Digital Dividend' for mobile.

How was the WRC-12 agreement for a second Digital Dividend for Region 1 achieved?
Al Awadhi: This was a very important issue and a successful effort. It started here in the UAE, and even at the national level it was not easy. So we knew it would be a challenge at WRC-12. Mobile services are booming, and the new technologies require additional frequencies. We created a national allocation in the 700MHz band for mobile broadband services, and then proceeded to promote the idea in the Arab World. One forum was the Gulf Cooperation Council (GCC), where we were met with a positive response. Of course our idea at the time was to get this on the WRC-12 agenda.

The Arab countries supported the idea and advocated for it through the ASMG, which also supported the proposal. And so, through the ASMG, a proposal was made to the WRC for Region 1. In the beginning, there was some resistance from Region 1 members, but through very hard work by the team — a lot of coordination and consistent effort — we managed to secure the allocation of the 700MHz band for mobile broadband in Region 1.

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How do you see the role of the regional organisations — including the ASMG, the African Telecommunications Union (ATU), the European Conference of Postal and Telcommunications Administrations (CEPT) and the Asia Pacific Telecommunity (APT) — in the continuing work on the Digital Dividend?

Al Awadhi: Their work is very important, not only for the Digital Dividend, but for every aspect of WRC preparation, particularly those aspects that involve bilateral coordination with the regional governments. Region 1 is very large, with something like 140 countries. So the ASMG, ATU, CEPT and APT have to work together to make sure that Digital Dividends 1 and 2 are harmonised. It is the harmonisation of these frequencies that facilitates international mobile roaming, and that puts downward pressure on mobile device prices due to scale economies in manufacturing.

What is the status of the Digital Dividend in the UAE?

Al Awadhi: In 2011, we provided the GCC with a plan for digital television in the whole UHF band. In that plan we agreed that the 800MHz band had to be vacated by broadcasters by the end of 2012. Now we are in the process of making sure there are no other users or interference coming from neighbouring countries. So that will be ready for the launch of commercial services very soon.

The digital TV plan also specifies that, by the end of 2013, all analogue TV has to be switched off. However, the UAE and many other countries in the region also agreed that digital TV should only extend to 694MHz, reserving the Digital Dividend frequencies above 694MHz for mobile. For the UAE, the 700MHz band must be vacated by broadcasters by 2013, and by 2014 it will at last be ready for use.

Mobile broadband penetration has become the most important indicator of socio-economic development. That's why we are working continuously to deliver mobile broadband services across the country. And having both the 700MHz and 800MHz bands for mobile is the product of our efforts.

What are the next big spectrum challenges for TRA?

Al Awadhi: The UAE's strategic plan, issued by the government, sets a development target for the country and goals for all of the UAE's different sectors through 2021. There is a clear vision for technological advancement and it is only possible to achieve these through mobile technologies and services. So we take guidance from our leadership vision, across all of our operational and budget planning, and there is always support for the advancement of mobile telecommunications.

Identifying spectrum for mobile services is a big challenge, because in order to find spectrum, you're always thinking about coordination with others, and you're always thinking about harmonisation. When we discuss this with our neighbouring countries, finding harmonised spectrum is difficult because all the spectrum is utilised by different initiatives, different services.

The strategic plan has a number of pillars, and one of these is enhancing the image of the UAE worldwide. The TRA, which manages spectrum for telecoms and IT, plays a big role in building the UAE's reputation as one of the top countries in telecommunications, with the best-managed spectrum worldwide.

As many governments in the Middle East are preoccupied with defence and public safety, what advice do you give to other regulatory authorities in the region as they try to allocate harmonised spectrum for mobile?

Al Awadhi: I like this question and I will tell you exactly what we are doing here. Of course, public protection is vital and important. In the UAE, we work closely with our public safety agencies. We involve them all the time to discuss the challenges of spectrum, as well as new issues and technologies that are coming up. We share everything with them and work as one team. This doesn't mean we give them all the spectrum they ask for, of course. But we give them a justification, so they understand the rationale behind our decisions.

Trust is gained by involving them in our work. This is absolutely essential. Many countries hide the information from other agencies, and this is the wrong approach. Far better to explain and involve. Here in the UAE, working as one team, we never have any problem with the public safety agencies and, as a result, we have been very successful in clearing and releasing harmonised bands for mobile.

If you could instantly change one thing in global, regional or national spectrum planning, what would that be?

Al Awadhi: Coming back to spectrum challenges, I would say it's harmonisation. Many services, many spectrum bands, are not harmonised in all three regions. So if I could wave my hand and make those services harmonised, that would be very good.

The Radio Regulations themselves cause complications. Sometimes we need a new allocation for services in one region — let's say we have a new technology to roll out — but we cannot do anything until after the World Radio Conference, which is the only time the Radio Regulations can be changed. Technology cannot be brought to this country until there is an allocation. Country A and Country B cannot negotiate harmonisation between themselves. So that is my complaint, but I don't think it is likely these things will change soon.

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Securing the Digital Dividend for a Mobile Future
This is one of a series of interviews conducted by the GSM Association that aims to capture the experiences, insights and advice of industry regulators, government officials and others who have spearheaded the transition from analogue to digital television broadcasting, and released part of the surplus spectrum, known as the Digital Dividend, for mobile broadband.
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Digital Dividend