Middle East and Africa Market Panorama: FTTH/B Deployments

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Agenda

- Market Panorama Scope and Methodology
- Broadband Market Context and FTTH/B Network Deployment Trends
- FTTH/B Subscriber Adoption Trends
- Key Takeaways and Outlook

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Pyramid Research tracked and analyzed historical and ongoing FTTH/B projects across sixteen countries in the Middle East and Africa combining primary and secondary research

- Commissioned by the FTTH Council Europe to prepare the Council's Middle East and Africa Market Panorama market research study, which provides a comprehensive overview of the FTTH/B market environment, traction and network deployment activity in selected countries between 2007 and 2011

- Selected 16 countries are:

• Algeria	• Iraq	• Morocco	• South Africa
• Bahrain	• Jordan	• Oman	• Syria
• Egypt	• Kuwait	• Qatar	• Tunisia
• Iran	• Lebanon	• Saudi Arabia	• UAE

- Methodology used:
  - secondary data and research,
  - desk-based phone interviews with FTTH/B network operators and service providers
  - benchmarking analysis and quantitative modeling for estimating those metrics for which actual data is unavailable
  - information exchange with FTTH Council members

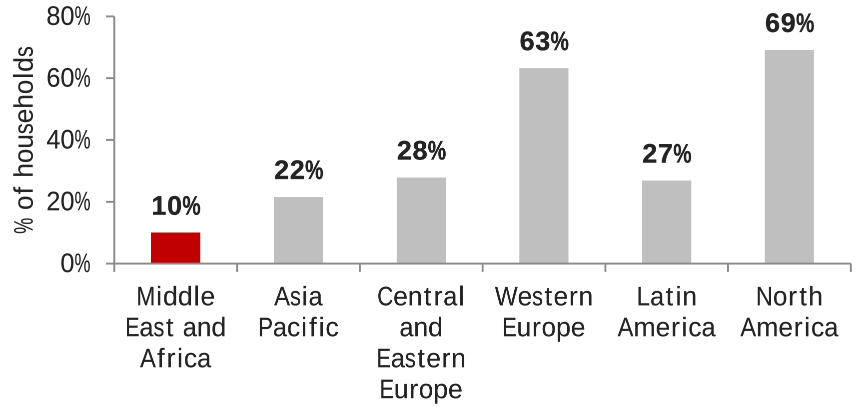
Pyramid Research

Growth prospects for FTTH/B look promising in the region, thanks to projected economic growth, higher literacy rates, additional capacity and ongoing as well as planned FTTH/B broadband initiatives

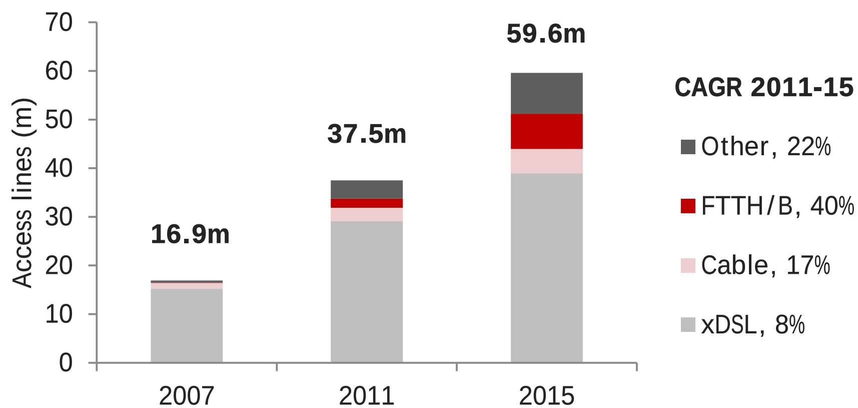
- Current broadband household penetration is merely 10% in the MEA region
- Significant investments are underway to improve availability, quality and pricing

- TechCentral i3 Africa in South Africa plans to make FTTH/B available to 2.5m household by 2016, backed by National Empowerment Fund
- Lebanon's Ministry of Telecommunications' plans to cover 75% of the population with FTTH
- Etisalat's network has passed 86% of the UAE's households
- Qtel in Qatar plans to replace its copper-based network with FTTH by 2013.
- The scope of Qatar National Broadband Network involves fiber connections to 95% of the country's households.
- Saudi Telecom Company's FTTH subscriptions increased by about 300% within a few months

BROADBAND PENETRATION OF HOUSEHOLDS, 2011



BROADBAND ACCESS LINES IN MIDDLE EAST AND AFRICA



Source: Pyramid Research

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The Gulf countries boast the strongest momentum in FTTH/B network deployment among the 16 countries analyzed in the region, accounting for 92% of all homes passed with FTTH/B

NUMBER OF HOMES PASSED BY FTTH/B, 2010-2011 (000)

Country	2010	2011	Y-o-Y Growth
The Gulf Countries:			
Bahrain	7.9	10.1	27%
Kuwait	65.0	80.7	24%
Oman	7.7	10.1	31%
Qatar	13.3	77.7	486%
Saudi Arabia	29.5	115.2	290%
UAE	985.7	1,186.8	20%
African Countries:			
Algeria	3.0	20.0	567%
Egypt	55.3	57.3	4%
Morocco	0.1	0.1	67%
South Africa	19.5	23.8	22%
Tunisia	3.2	5.0	56%
The Levant Countries:			
Iran	0.0	0.0	0%
Iraq	2.5	8.0	220%
Jordan	2.0	2.6	32%
Lebanon	4.7	5.0	6%
Syria	0.8	1.2	50%
Overall	1,200.2	1,603.7	34%

Source: Pyramid Research, based on operator data

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Network deployment has been driven by different types of players in the Gulf region, from incumbents and mobile operators to utilities, governments and housing developers

FTTH/B NETWORK OPERATORS AND SERVICE PROVIDERS

THE GULF	ILECs/CLECs	Government Body	Utilities	Housing Developers
Bahrain	Batelco Nuetel 2Connect		EWA	AJM Koheeji and Sons
Kuwait		Ministry of Communications		
Oman	Omantel Nawras		Haya Water	
Qatar	Qtel Vodafone Qatar	ictQatar		
Saudi Arabia	STC ITC Atheeb Mobily		Saudi Electricity Company Tamasol	
UAE	Etisalat Du			

Source: Pyramid Research

ILECs and CLECs are the main FTTH/B players in the Levant and across Africa, with a number of housing developers making fiber available across high-end residential compounds

FTTH/B NETWORK OPERATORS AND SERVICE PROVIDERS

THE LEVANT	ILECs/CLECs	Housing Developers
Iran	Telecommunication Company of Tehran (TCT)	
Iraq	Iraqi Telecommunications and Post Company (ITPC) ScopeSky	SBJ
Jordan	Jordan Cable Service (JCS) Kulacom Jordan Telecom	
Lebanon	OGERO	Solidere
Syria		EMAAR
AFRICA	**ILEC/CLEC**	**Housing Developers**
Algeria	Algerie Telecom	
Egypt	Telecom Egypt LINKOne	PHD TMG
Morocco	Wana	
South Africa	Neotel	Smart Village Atec Systems Digital Village
Tunisia	Tunisie Telecom	

Source: Pyramid Research

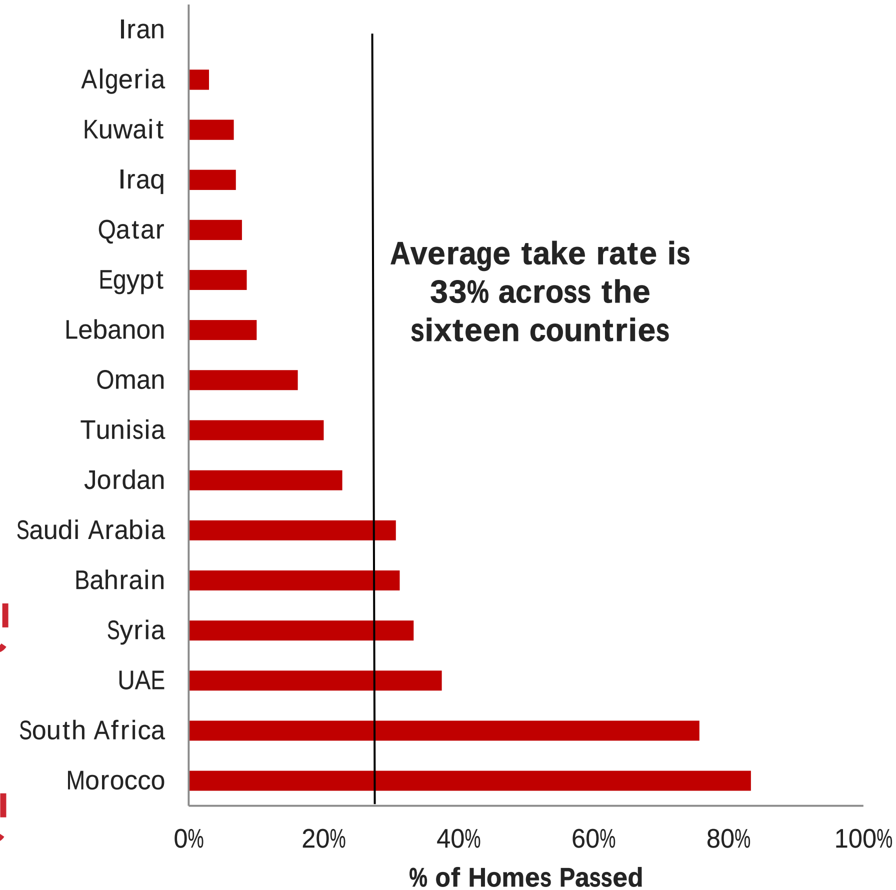
FTTH/B subscriber growth has been slow to date besides the UAE and Saudi Arabia; take rates, however, have been very strong due to the targeted deployment focused on high-end residential areas and businesses

FTTH/B SUBSCRIBERS AND Y-O-Y GROWTH

Country	FTTH/B Subscribers (000)		Year-over-Year Subscriber Growth
	2010	2011	
Algeria	0.2	0.6	200%
Bahrain	2.5	3.1	23%
Egypt	3.3	4.9	48%
Iran	0	0	0%
Iraq	0.2	0.6	250%
Jordan	0.4	0.6	44%
Kuwait	4.6	5.4	16%
Lebanon	0.4	0.5	21%
Morocco	0.1	0.1	67%
Oman	0.4	1.6	366%
Qatar	4.9	6.1	25%
Saudi Arabia	5.8	35.4	510%
South Africa	13.9	18.0	30%
Syria	0.1	0.4	300%
Tunisia	0.5	1.0	122%
UAE	301.0	445.2	48%
Overall*	338.3	523.6	55%

Source: Pyramid Research

FTTH/B TAKE RATE, 2011



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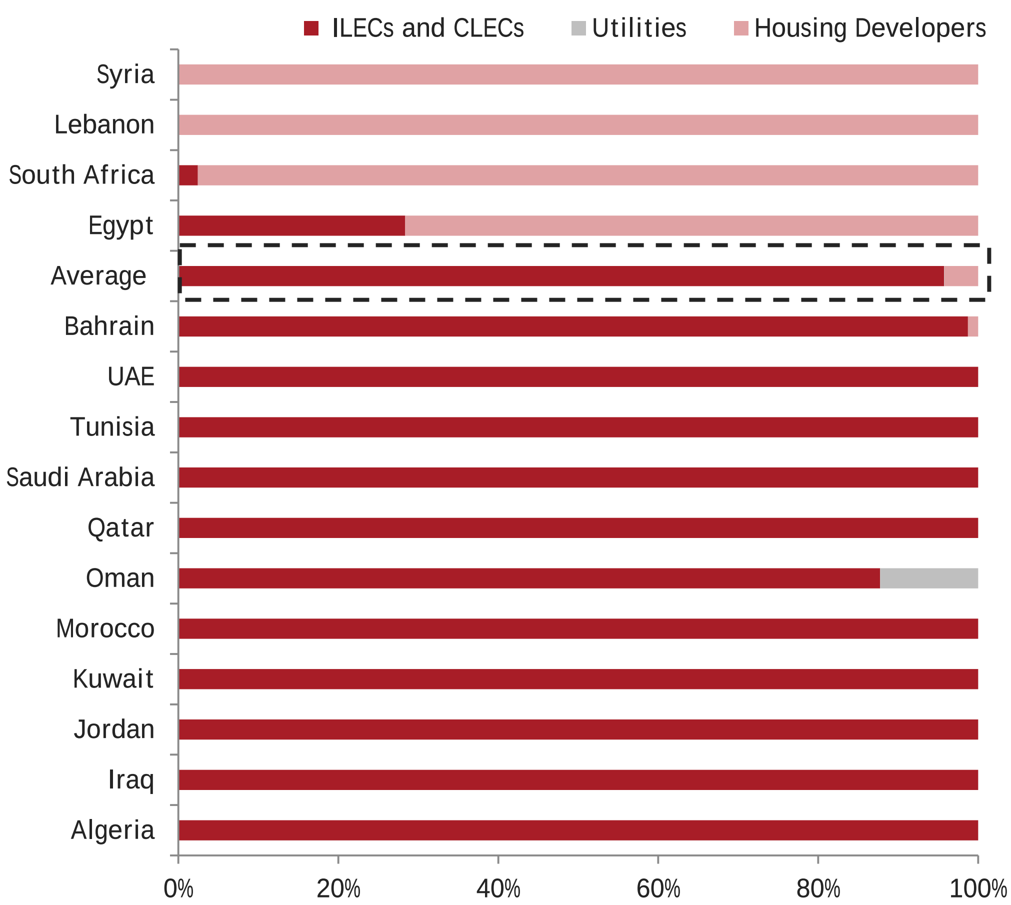
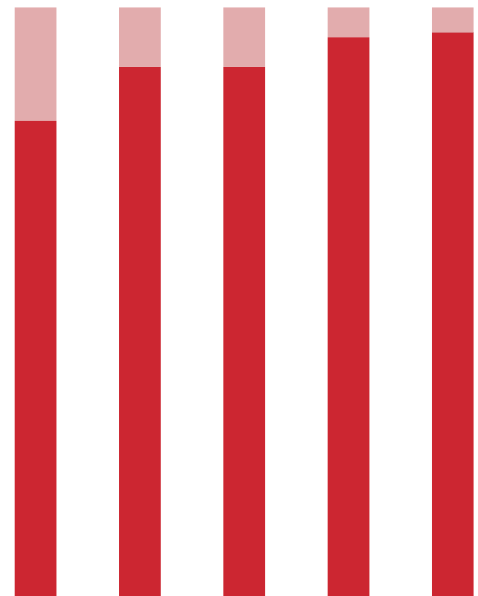
Traditional broadband players, ILECs and CLECs, drive nearly 96% of the FTTH/B subscriber adoption; housing developers have an important role in pioneering FTTH/B deployment, accounting for 20% of the subscribers in 2007

FTTH/B SUBSCRIBERS BY PLAYER TYPE BY COUNTRY, 2011



FTTH/B SUBSCRIBERS BY PLAYER TYPE, 2007-2011

ACROSS THE SELECTED 16 COUNTRIES



	2007	2008	2009	2010	2011E
Housing Developers	19.2%	10.1%	10.1%	5.0%	4.2%
Utilities	0.00%	0.00%	0.00%	0.00%	0.04%
ILECs and CLECs	80.8%	89.9%	89.9%	95.0%	95.7%

Source: Pyramid Research

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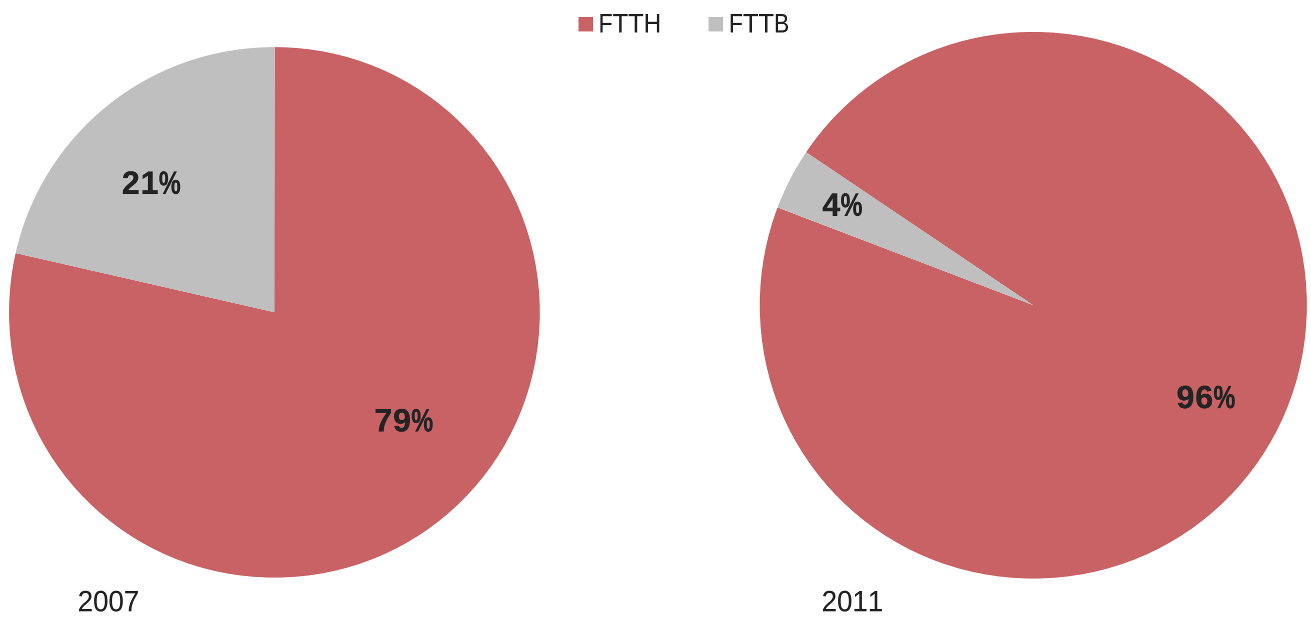
FTTH subscribers comprise 96% of the total across the selected 16 countries; FTTB deployments are largely found across businesses and some housing developments

- Going into each housing unit directly with fiber is a strong selling point while commercializing FTTH. This is a very common practice both in the UAE and Saudi Arabia, leaders in the region.
  - Between 2007 and 2011, as residential offers picked up, so did the share of FTTH vs. FTTB.

FTTH/B SUBSCRIBERS BY NETWORK TYPE, 2007 and 2011

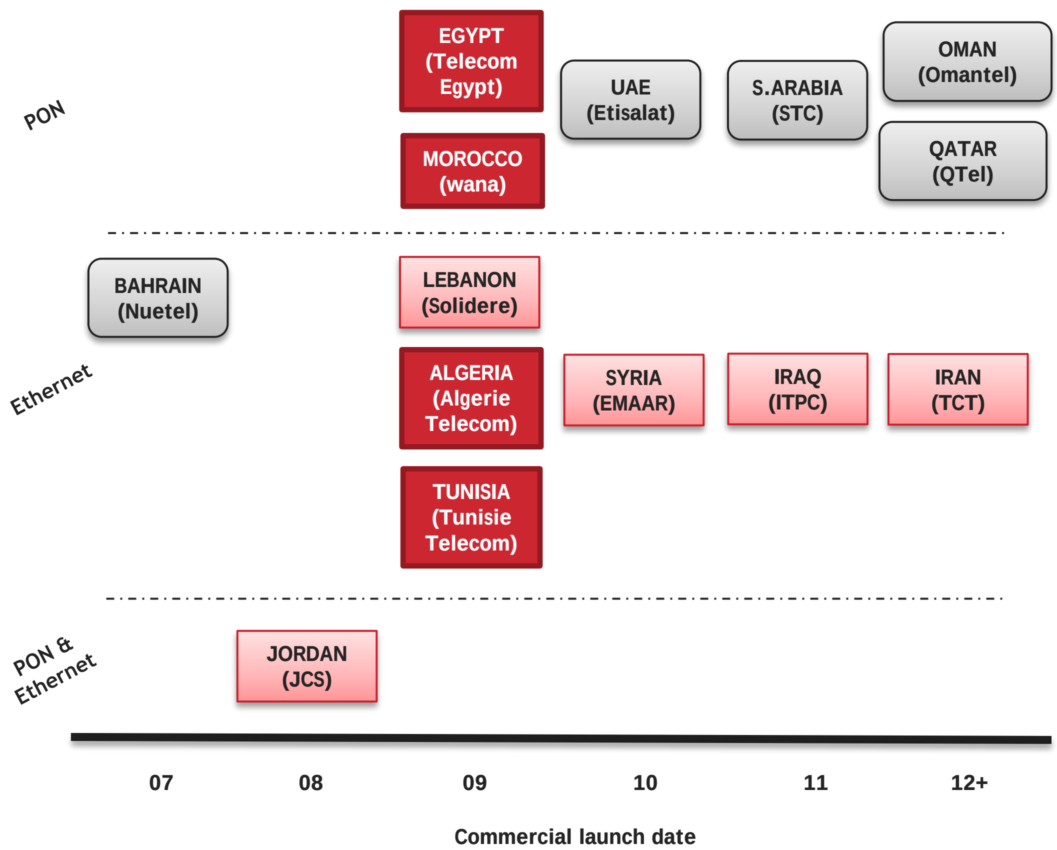
ACROSS THE SELECTED 16 COUNTRIES



Source: Pyramid Research

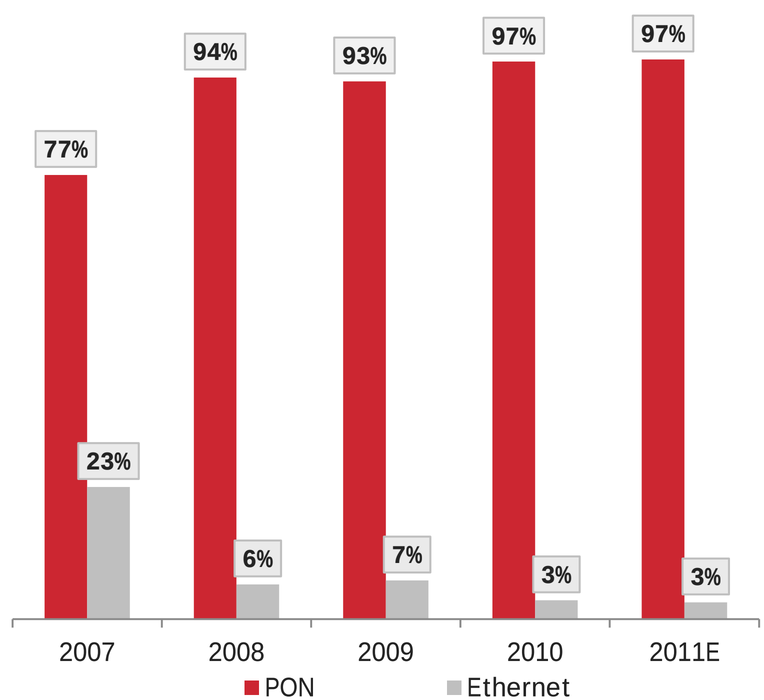
The Gulf region has predominantly PON-based deployments, driving up PON-based subscriptions in MEA, while Ethernet leads in the Levant

FTTH/B NETWORKS BY TECHNOLOGY



FTTH/B SUBSCRIBERS BY TECHNOLOGY TYPE, 2007-2011

ACROSS THE SELECTED 16 COUNTRIES



Source: Pyramid Research

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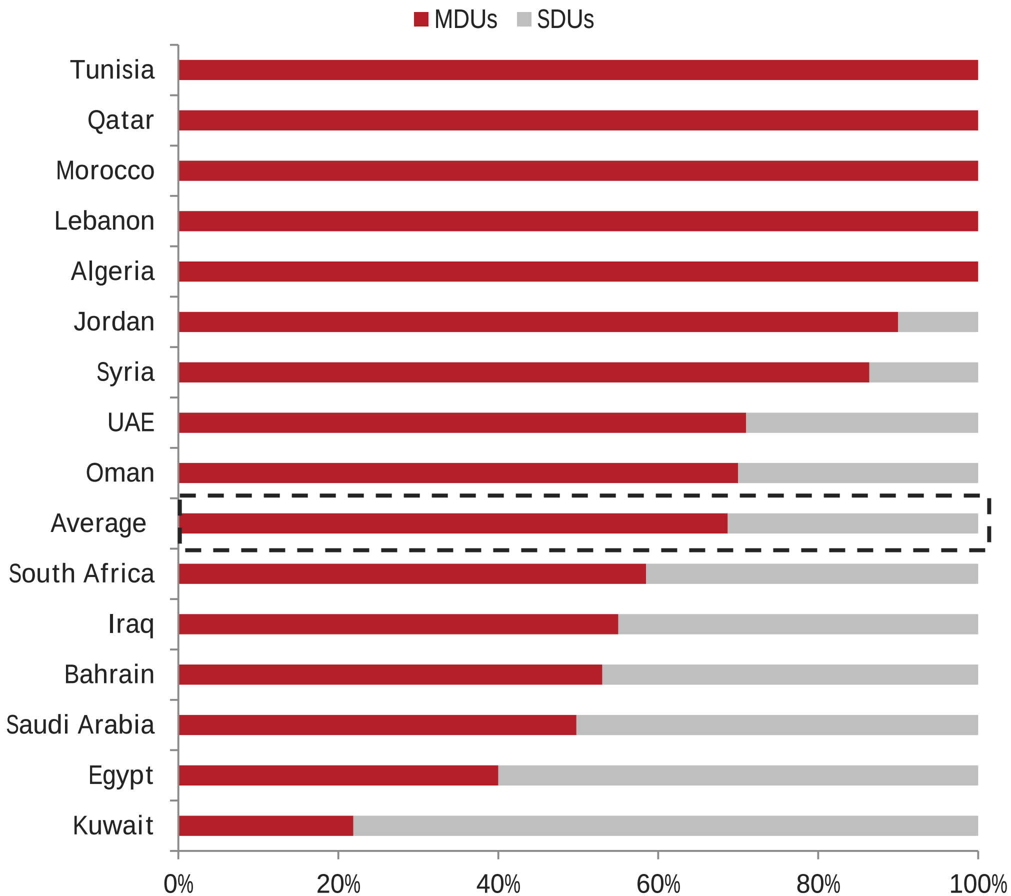
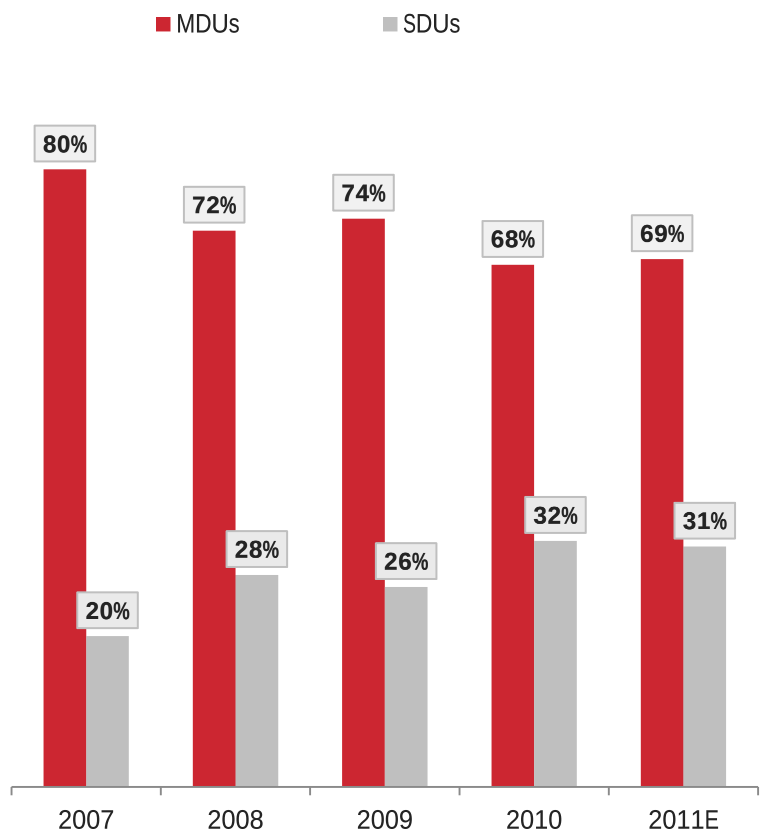
Multiple dwelling units drive 69% of total FTTH/B subscribers; the share of single dwelling units is rising in correlation with growing FTTH/B coverage

FTTH/B SUBSCRIBERS BY PLAYER TYPE BY COUNTRY, 2011



FTTH/B SUBSCRIBERS BY DWELLING TYPE, 2007-2011 ACROSS THE SELECTED 16 COUNTRIES



Source: Pyramid Research

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Significant progress has been made in FTTH/B network deployment and more is on the way thanks to the involvement of traditional players and governments just as well as alternative players such as housing developers

- FTTH/B commercial deployments in the MEA region intensified in the past two years (2009-2011). The number of homes passed with FTTH/B grew by 34% between 2010 and 2011 to reach 1.6m across the sixteen markets within the Panorama scope.
    - The Gulf countries boast the strongest momentum in FTTH/B network deployment.
    - Largely due to the political and regulatory issues, the Levant countries have seen the slowest progress on planned FTTH/B deployments to date.
    - In Africa, FTTH/B deployments are rather limited, mainly targeting businesses and high-end residential communities.
- ILECs and CLECs comprise the main group of players deploying FTTH/B, with a number of housing developers making fiber available across high-end residential compounds and business parks in Africa and the Levant countries.
- FTTH/B subscribers reached 523k in 2011, with a y-o-y growth rate of 55%. UAE accounted for 85% of all FTTH/B subscribers across the sixteen markets.
- Take rates have largely been strong due to the targeted deployment focused on high-end residential areas and businesses; over 75% in Morocco and South Africa and at 38% in the UAE.
- Ongoing initiatives by industry players coupled with government-led programs promise strong growth prospects for FTTH/B across the Middle East and Africa.

Thank you for your attention.

If you have additional questions, please contact:

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