

Africa: Regional Insights

Ripe 2016



Africa – Small Market BIG Opportunities

- Over a billion people - of which 40% are reachable by fibre
- Mobile users set to double in the next 5 Years reaching 60% penetration
- Improved Metro Connectivity averaging at 100 Mbps in key hubs: Johannesburg, Cape Town, Durban, Lagos, Nairobi, Accra
- In Larger economies two-thirds of businesses with 50+ staff have access to broadband

	TIER 1 TELECOs	CARRIER NEUTRAL DATA CENTRES	FIBRE / CABLE COMPANIES	IT / CLOUD SERVICE PROVIDER / ISPs
ESTIMATED NUMBER OF DCs	≈50+	≈7	≈5	≈70+
ESTIMATED SHARE OF DC WHITE SPACE	47%	≈20%	≈7%	≈26%
EXAMPLES	MTN, Telkom, Vodacom	Teraco, Rack Centre, Kooba	MainOne, Liquid Telecom, Broadbased	Internet Solutions, BCX, T- Systems, CWG

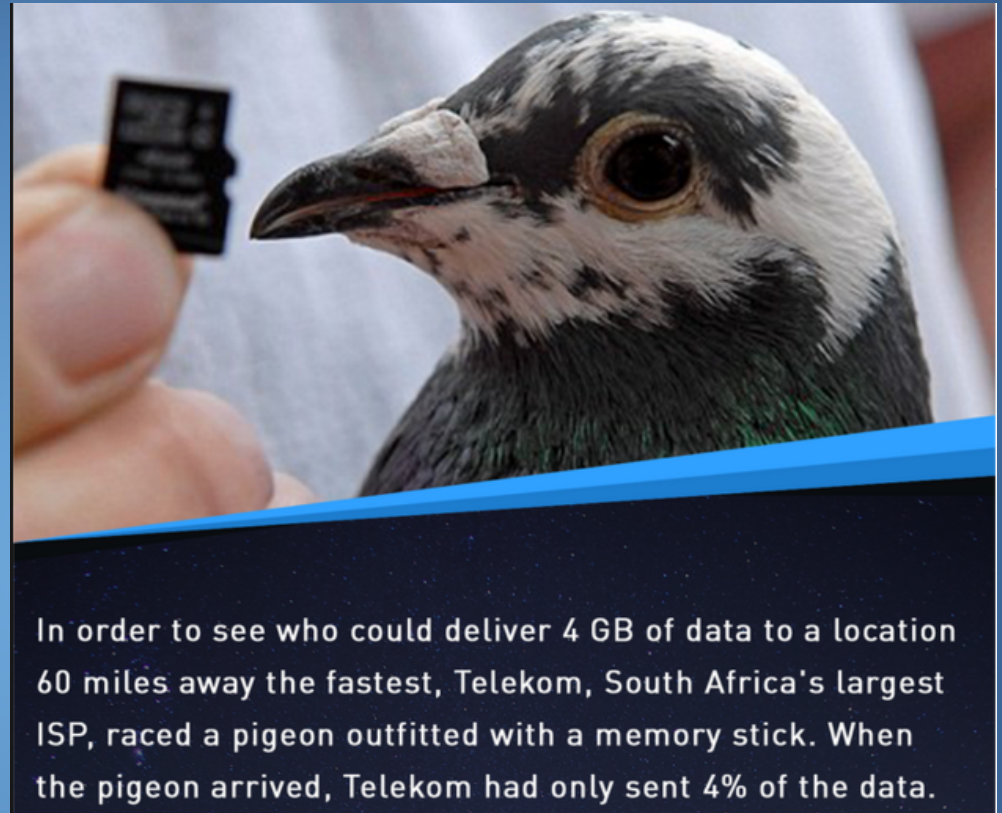
And Changing Quickly... In the News

Winston won't win this time:

- South Africa's Largest ISP, Telkom, now known as Openserve (AS5713) has finally opened its doors and ready to peer with you as of today!!
- Let me know if you need an introduction

More Cables:

- Finally the cables system between Angola and Brazil have commenced!
- Angola Cables and NEC have paired up to build 40Tbps of capacity which is expected to be ready to play with mid 2018

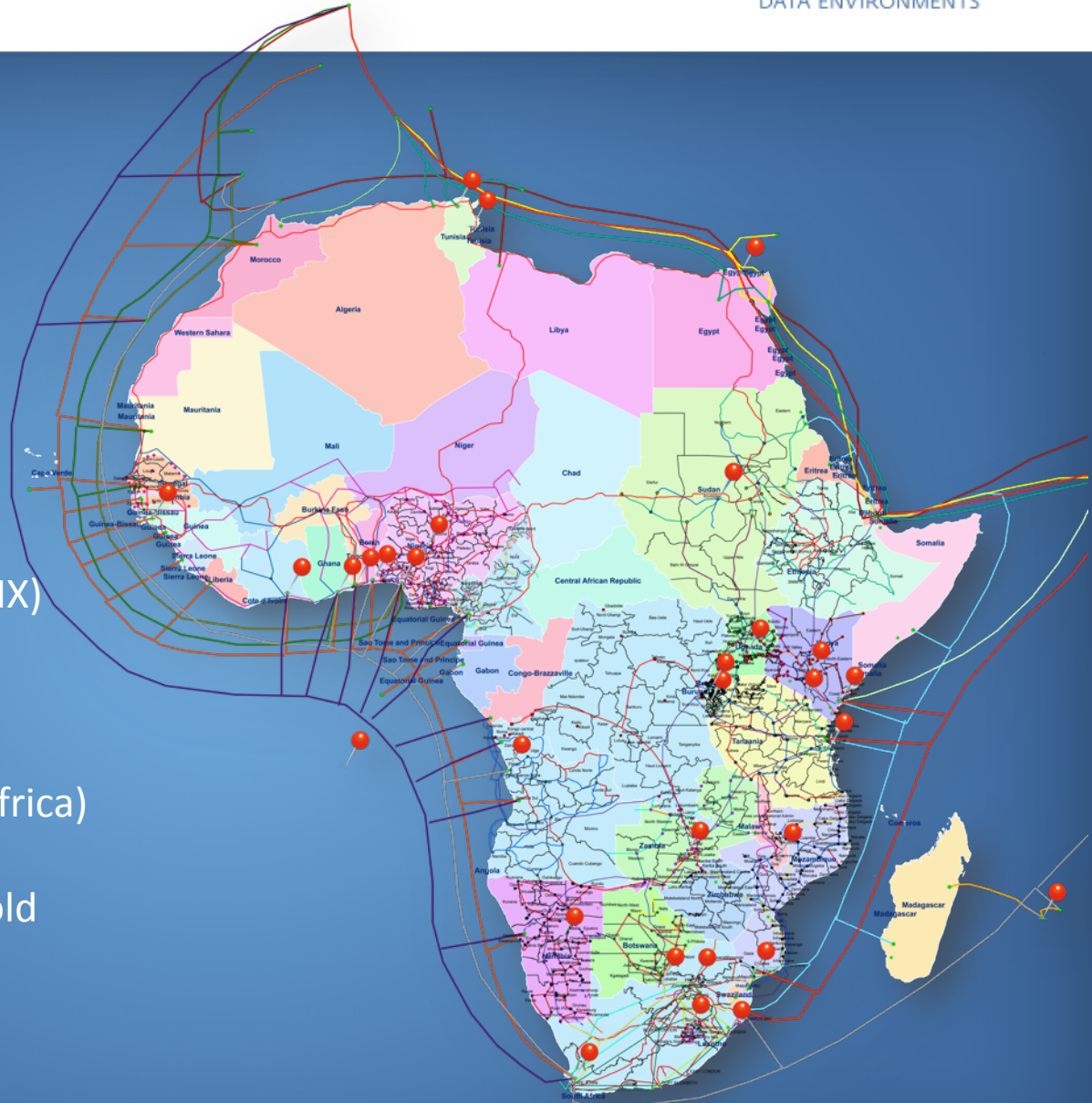


In order to see who could deliver 4 GB of data to a location 60 miles away the fastest, Telkom, South Africa's largest ISP, raced a pigeon outfitted with a memory stick. When the pigeon arrived, Telkom had only sent 4% of the data.

Africa a Young IXP market

- 54 countries in Africa (AU)
- 34 IXPs in 26 countries
- Oldest IXP: 1996
- Newest IXP: 2016 (Gabon-IX)
- IXP Traffic: 160 Gbps+
- Largest: 90 Gbps (South Africa)
- AF-IX Association 3 years old

<http://www.af-ix.net/>

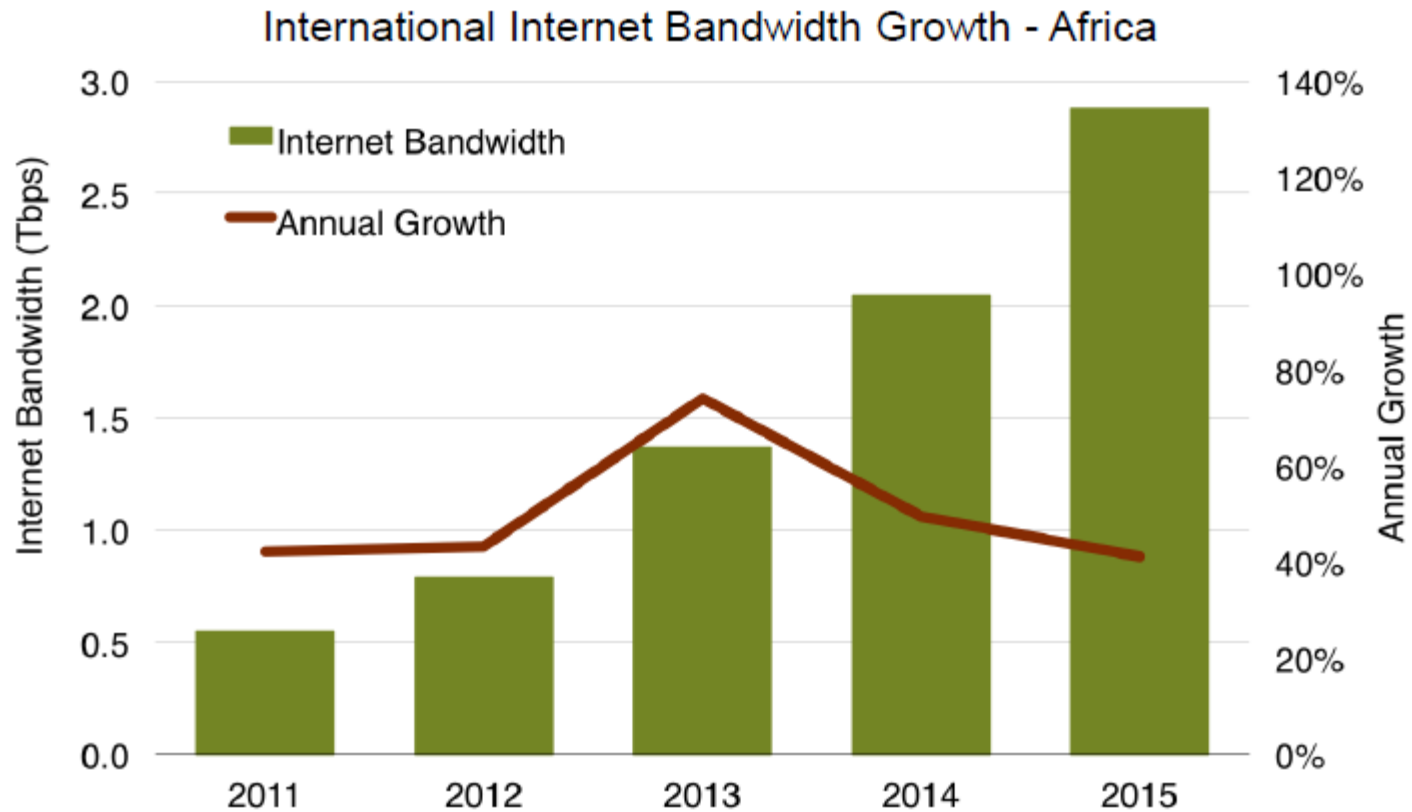


Varied commercial models per country

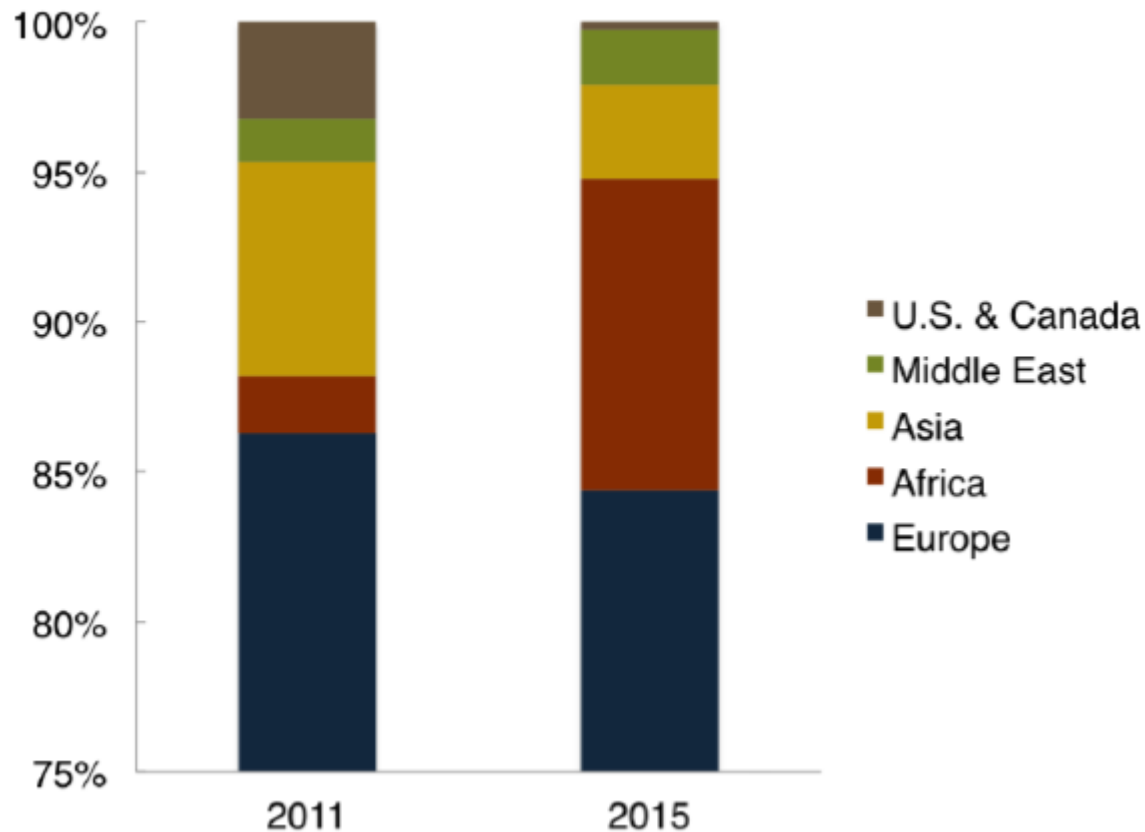
Fees		IXP A USD	IXP B USD	IXP C USD	IXP D	Average
Membership		1250	0	0	0	312,5
10Mbps Port	monthly	100	0	0	0	25
100Mbps Port	monthly	250	220	0	385	213,75
1Gbps Port	monthly	750	670	0	500	480
10Gbps	monthly	2500	832	0	655	996,75

- Low capacity ports still available at 90% of exchanges;
- Port fees vary and can be as high as Europe with less value
- Can still get away with high port fees due to high transit costs... Good for the internet growth in Africa?

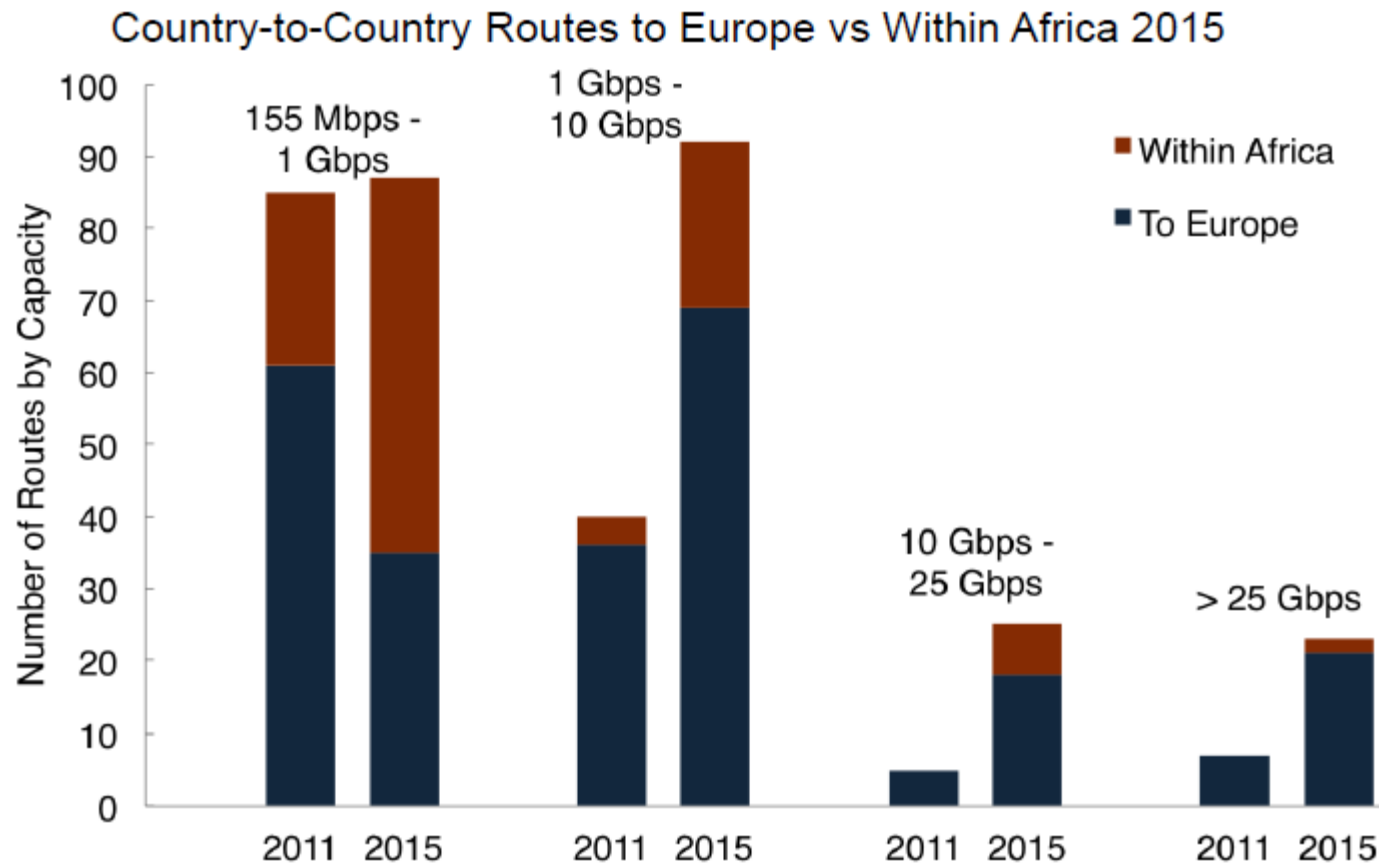
Finally we have SOME Capacity



Share of Africa Int'l Internet Bandwidth by Region, 2011 vs 2015

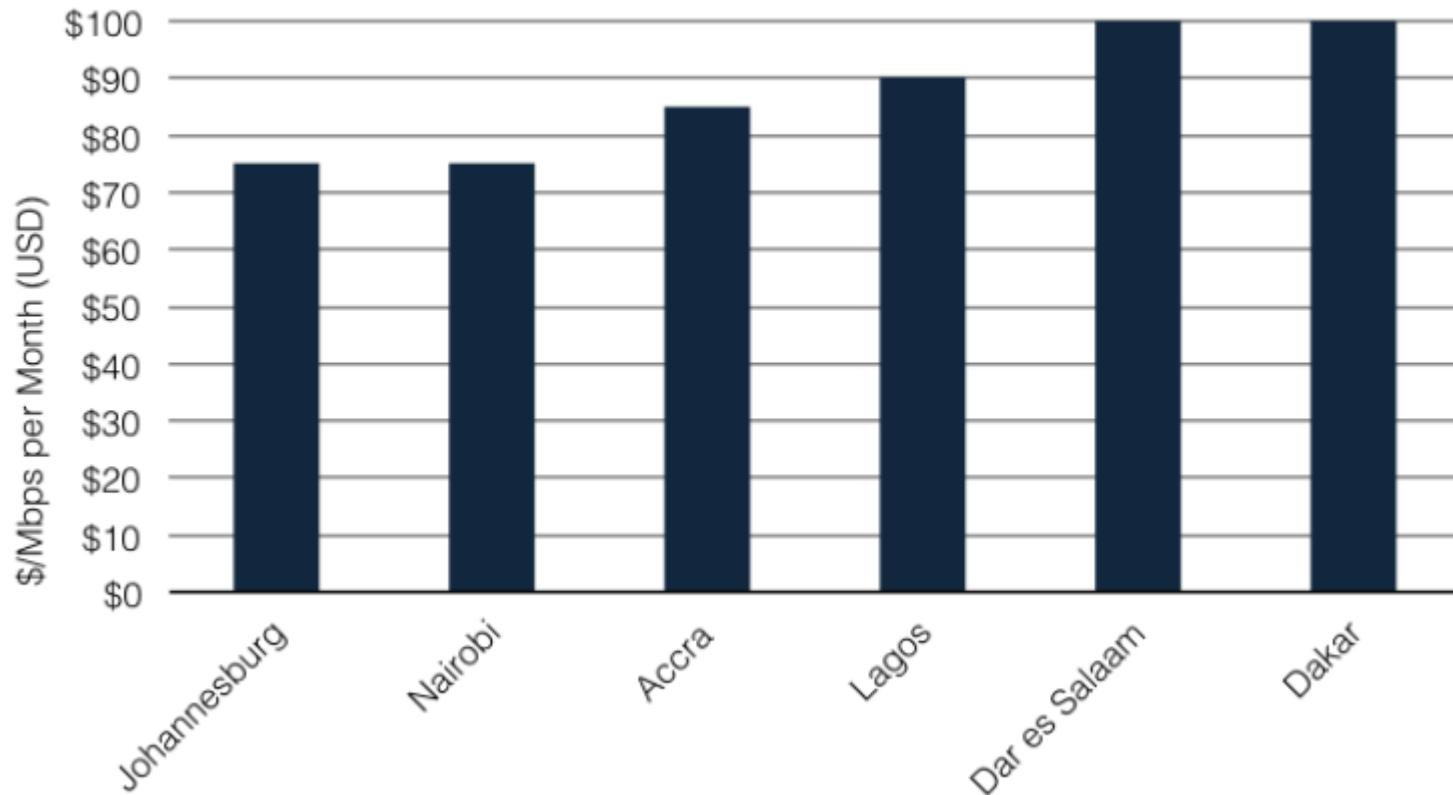


Still Small capacity due to Price

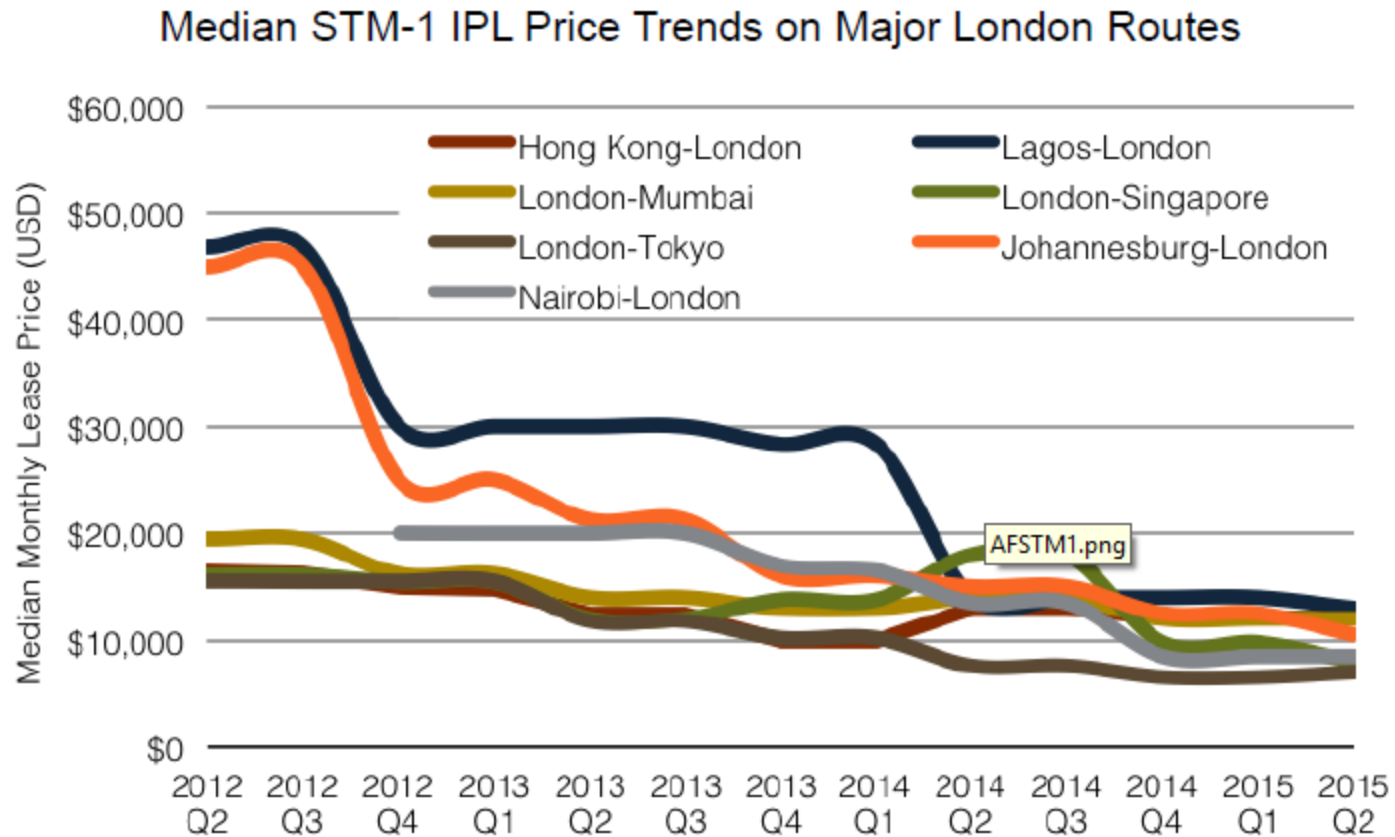


Transit pricing is declining but still high

Median STM-1 IP Transit Prices in Africa, Q2 2015

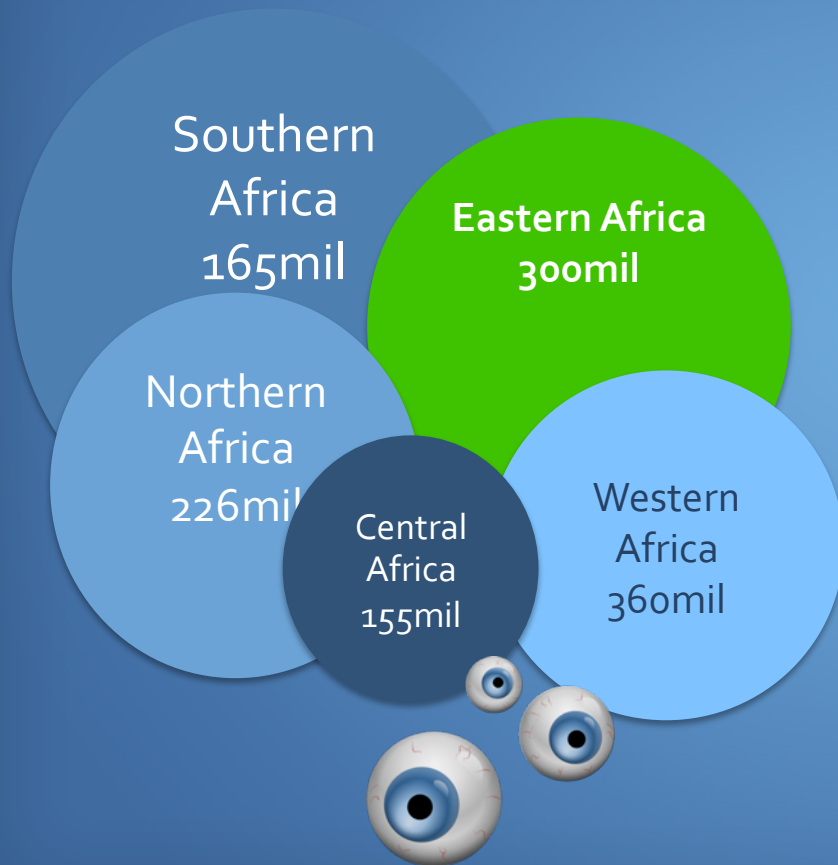


Lining up with the Major routes

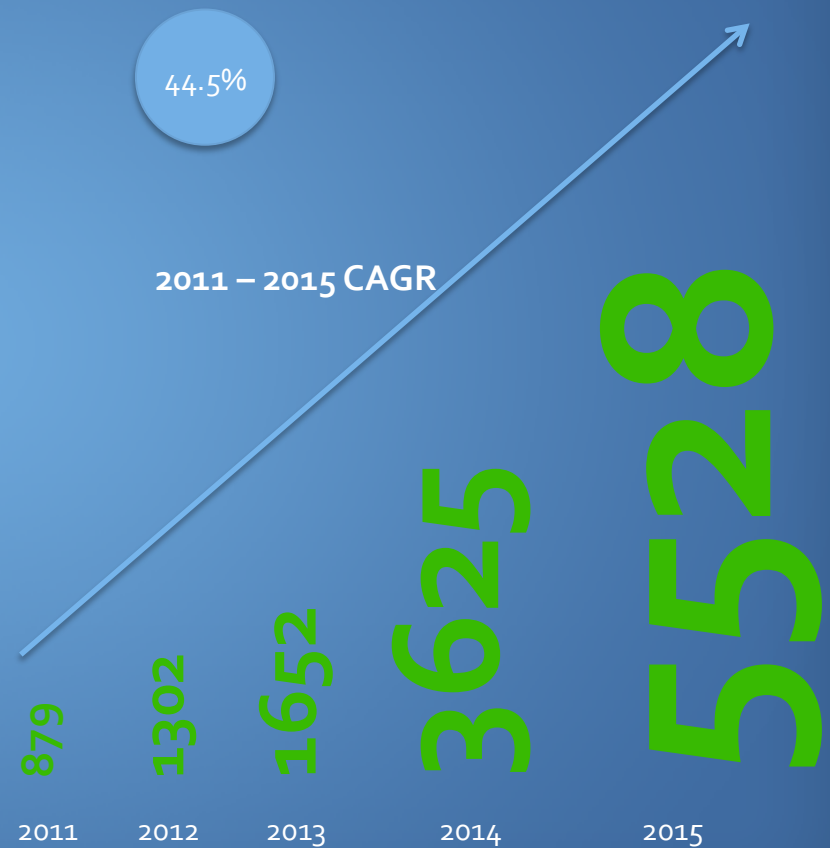


African Hubs – a Modern Marketplace

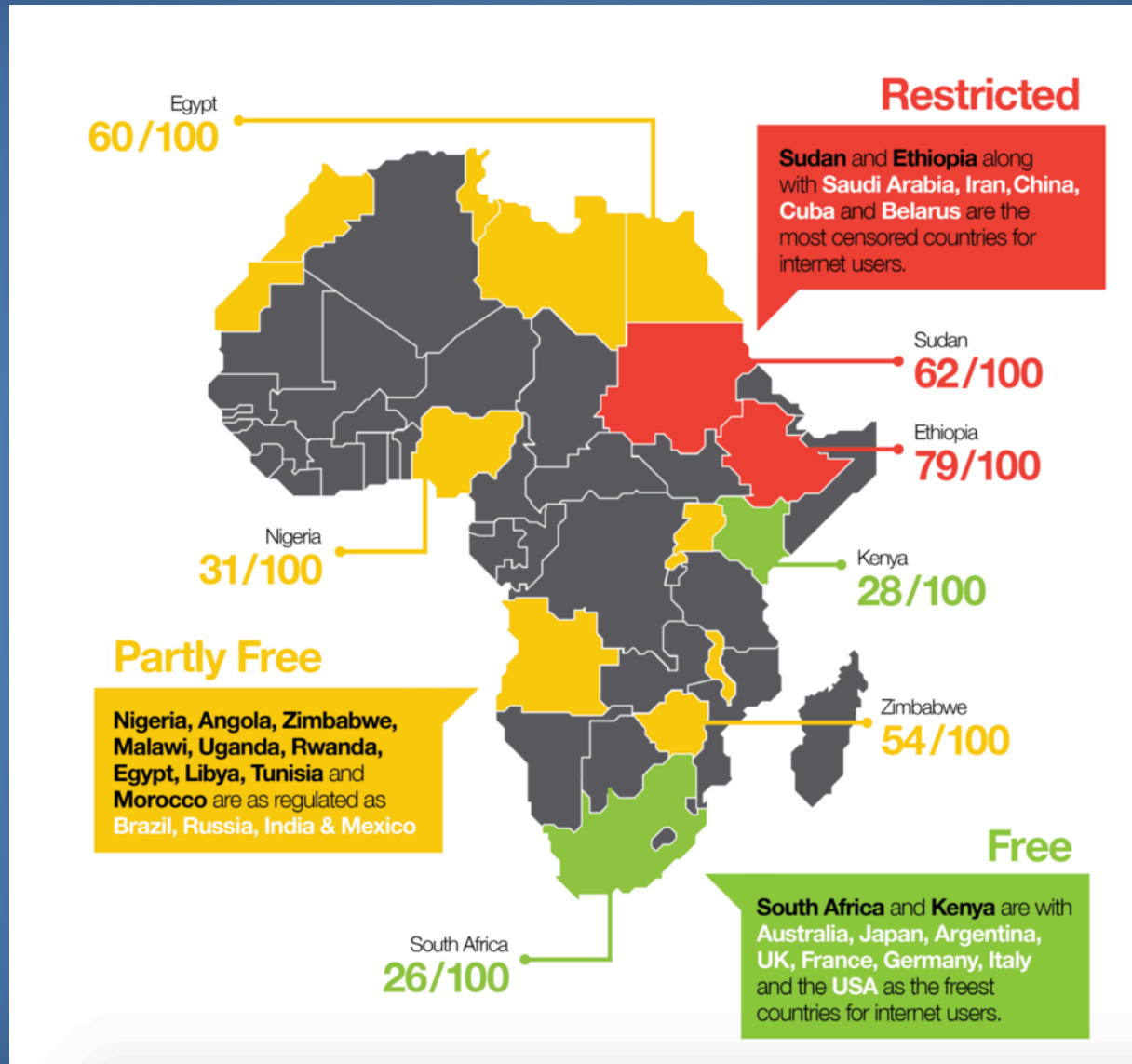
The world's 2nd fastest growing economic region and its growing population



SADC Example of a Growing Community:
Up and to the right!

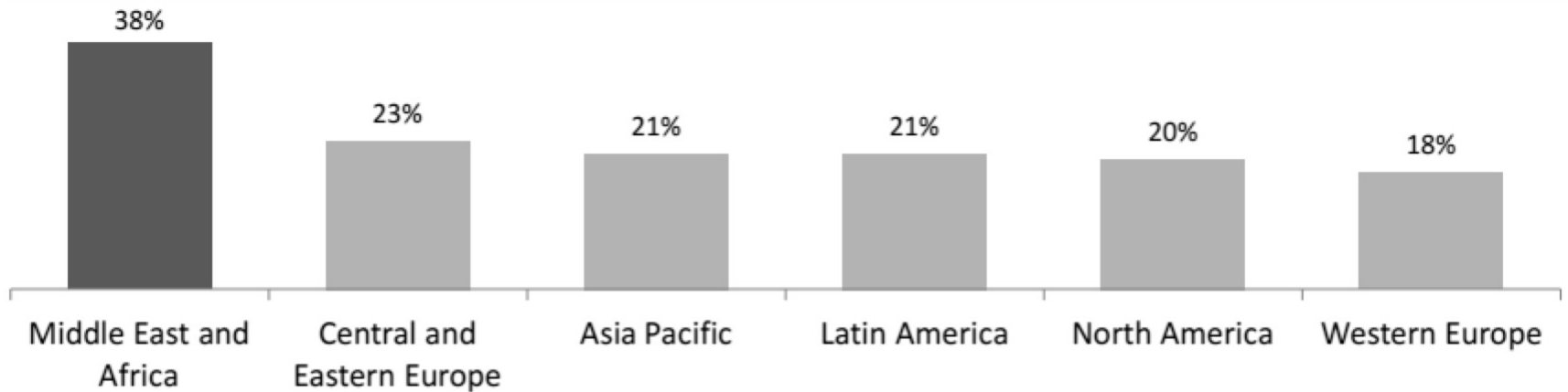


African Internet – Free vs Restricted

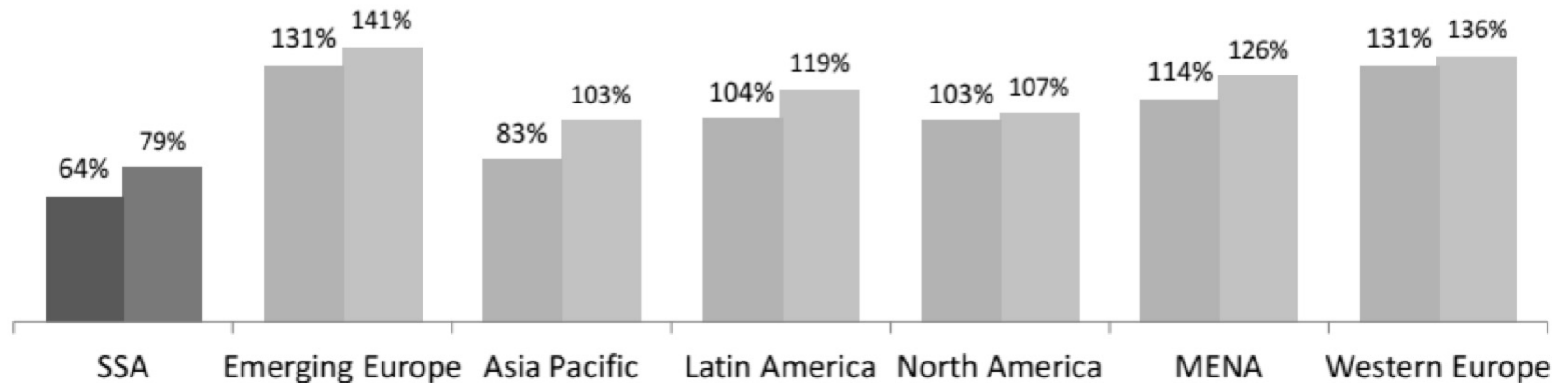


Mobile Penetration driving Growth

Global IP traffic (EB per month) – CAGR 2013-18



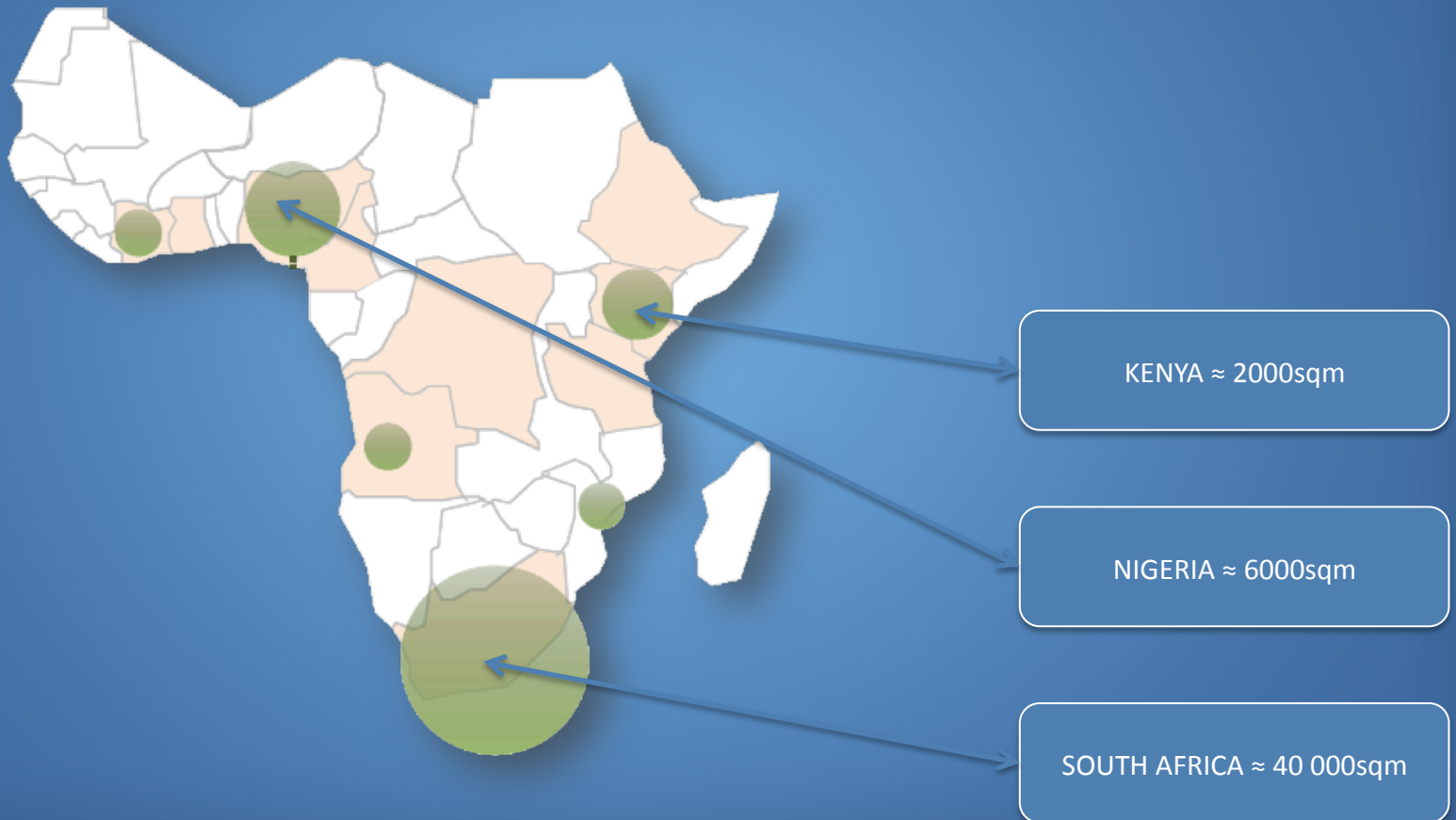
Mobile Penetration by Region



Africa – Highly concentrated

3 COUNTRIES: KENYA, NIGERIA & SOUTH AFRICA REPRESENT 95% OF TOTAL WHITE SPACE IN AFRICA

A mapping of sub-Saharan Africa's data centre white space capacity (sqm) - 2015



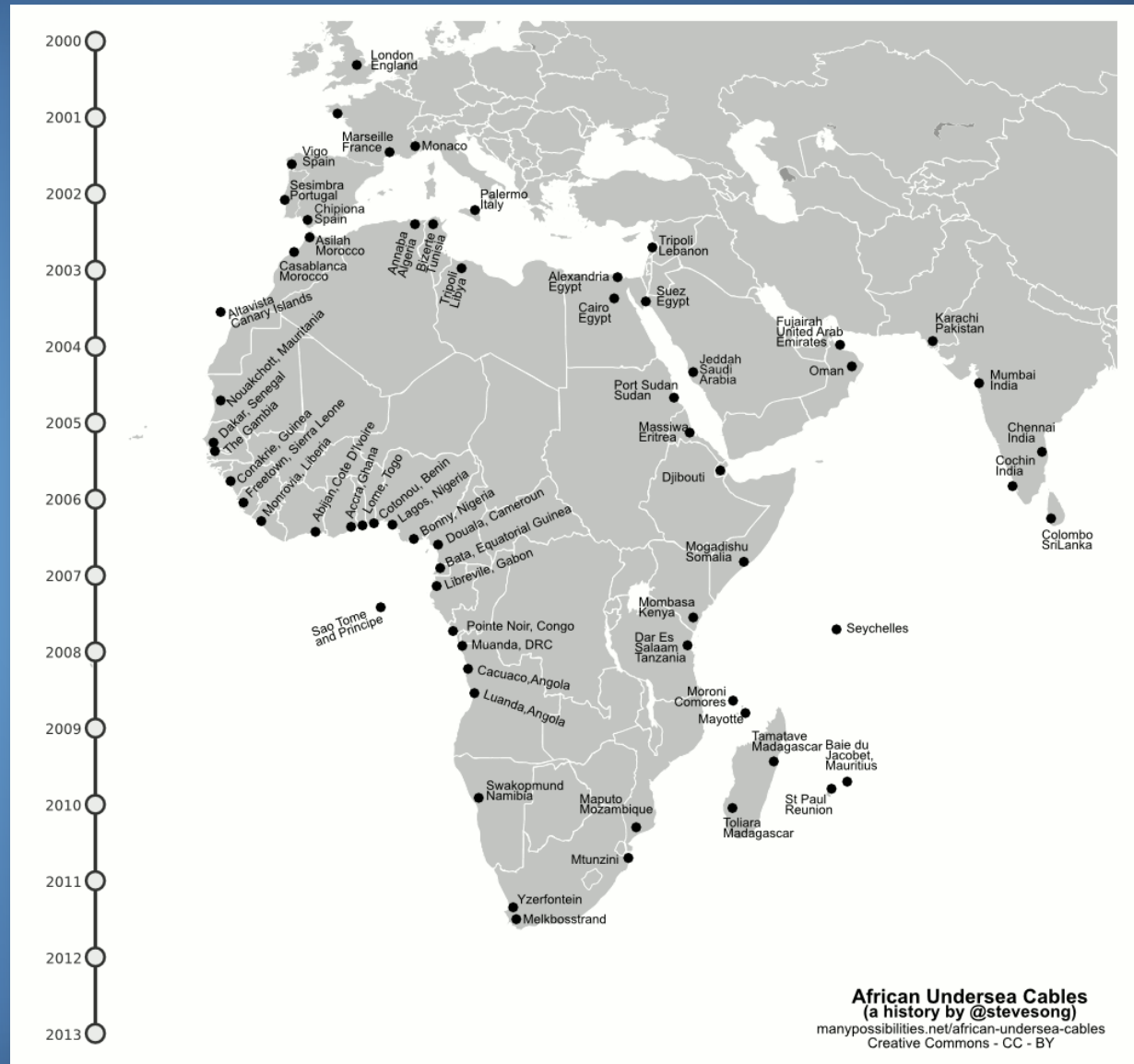
Global Comparison

	 DIGITAL REALTY	 EQUINIX	 <i>TELEHOUSE</i>	 interxion™	 TelecityGroup <small>where content meets connectivity</small>
 DC FACILITIES	131 DC's	105 DC's	44 DC's	39 DC's	40 DC's
 IT POWER IN MW	800 MW	370 MW	400 MW	109 MW	113 MW
 WHITE SPACE SQM	611 000	323 000	370 000	95 000	120 000

Source: Company Webpages

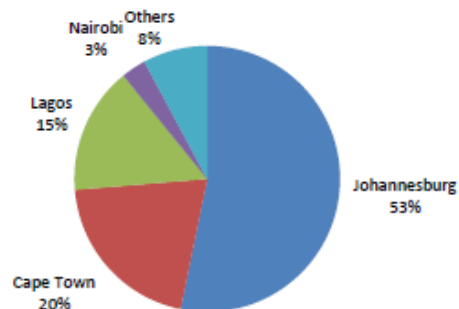
What are the Next Hotspots?

- Tanzania
- Côte d'Ivoire
- Ghana
- Nigeria

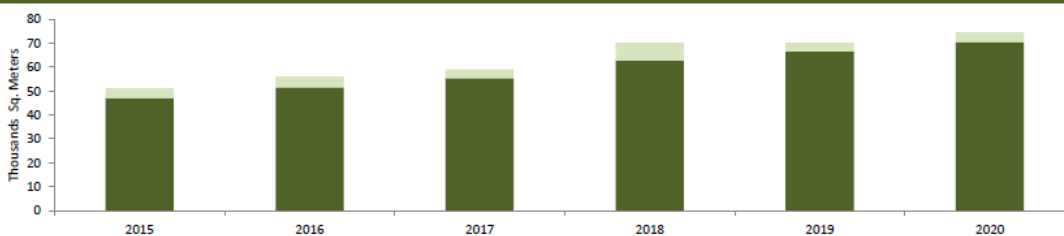


Growth Opportunities

Market Contribution to Africa Colocation Supply – Sq. m - 2015E



Africa Colocation White Space – Five Year Projections*



*Estimated space immediately available for leasing (not shell capacity)

Africa New Data Centers – Sample Projects & Plans – Indicative Only




































COUNTRY	COMPANY	PROJECT	TIMING
Kenya	Kooba	New data center planned for Nairobi/Limuru	2016
Tanzania	Kooba	Dar es Salam	2016-17
Nigeria	Globacom	Ibadan	NA
Nigeria	MainOne	Sagamu	NA
Mozambique	Vaninga	Beira, Pemba/Tete	2016

The Economic Drive

CITY	ESTIMATED GDP (\$ bn)	# OF MULTITENANT DC WITH >250 SQM WHITE SPACE
Johannesburg	141	>10
Lagos	120	>5
Cape Town	70	>5
Durban	60	>3
Ibadan	25	0
Nairobi	28	1
Dar es Salam	5.60	0
Abidjan	9	0
Kano	30	0
Kinshasa	7.5	N/A**
Accra	5	N/A**

***Sources: TZS, NBS, Stats SA, World Bank, KNBS, Departement des Statistiques de Cote-d'Ivoire

Summary: Benchmarking

	Enterprise Addressable Market Size/GDP	Key Verticals	Tech Startup Ecosystem	Electric Power Availability	Availability of Affordable Metro & DLD Fiber	Availability of Affordable International Fiber
Johannesburg		Financial Services, Tourism, Mining, Media, Tech				
Lagos		Financial Services, Manufacturing, Tech, Media				
Cape Town		Financial Services, Tourism, Tech, Media				
Nairobi		Financial Services, Tourism, Tech, Media				
Abidjan		Financial Services, Tech				
Ibadan/Oyo State		Trade, Media, Tech, Academic Research				
Dar es Salaam		Financial Services, Tourism, Tech, Media				

What to watch out for?

- Corruption
- Poor quality construction
- Slow uptake from major multinationals
- Political instability
- Currency instability
- Variable standards
- Power infrastructure

MTN in Nigerian stand-off over R60.6-billion fine: report

The Sunday Times has reported that MTN has called the Nigerian government's bluff and missed the New Year's Eve deadline to pay its record fine.

By Staff Writer - January 3, 2016 20 Comments

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Thank you – Questions?

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