The future of Telecoms in Africa
The “blueprint for the brave”
Foreword

Africa can no longer be considered the Dark Continent. Given the rate at which mobile connectivity is growing, it seems only natural that the way business is done will change. But how will Telco’s embrace this change and are they even ready for it?

Deloitte has recently completed an in-depth analysis of the market, its trends, and the drivers of it. We are convinced that there will be consolidation in the telecommunications sector and inevitably more inbound investment as the market opens up and the economic returns improve.

Indigenous companies, foreign investors, and global players have all made significant investment into the continent or certainly parts of it. Even governments are waking up to the opportunity to regulate and to auction spectrum and licences.

While the future shape is still far from clear, we see four potential scenarios:

1. Winner takes all – as the markets consolidate quicker than most operators can respond;
2. Turf wars continue as new and existing operators battle it out for the profitable market and are joined by banks trying to protect their core business against mobile payments;
3. New entrants come into the market from adjacent sectors with greater added value than the traditional carriers – foreign media and even advertising groups are viewing telcos as a ready-made channel to market; and
4. Owning the hearts, minds, and wallets of consumers is the end goal. Will telcos, who have laid the foundation for connectivity and access, be the winners; or will it be global technology groups, the banks, media, advertisers or retailer giants?

The impact in not just on the industry incumbents, but on all players in their respective value chains (hardware, software, services and people provisioning) as they reposition their offerings to keep in step with an unchartered end-state.

“…industry boundaries are dismantling, and owning the consumer experience space is the prize”

Arun Babu, TMT Southern Africa

“…what surprises me is the interest from global advertising giants in telco acquisitions in the race to secure access to the growing African middle class”

Mark Casey, TMT Industry Leader – Africa

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African growth and the rising of the African middle class

Africa is one of the fastest growing regions in the world, with a forecast real GDP annual growth rate to 2017 of 5.5%. Over the next decade c.100m more people are expected to join the African middle class

A decade of rapid GDP growth ...

- Africa has grown at 8.7% CAGR in real GDP terms between 2000 and 2010, making it the second fastest growing continent in the world, only behind China-propelled emerging Asia. Third party forecasts suggest Africa will continue to grow very rapidly at ≤5.5% CAGR to 2017

- Part of this rapid GDP growth relates to improved international trade and an accelerated pace of foreign direct investment, in particular from emerging superpowers such as China and Brazil. Many major multinational corporations invest in Africa, both in natural resources, infrastructure, goods and services. Large brands such as Unilever, Diageo and Parmalat have entered Africa’s consumer market

- There surely remain impediments to growth – road, rail infrastructure and power can be scarce, political instability and corruption are still widespread, regional integration is progressing only slowly but all these elements are improving and making long-lasting impacts

... has created a growing African middle class

- Africa’s contribution to global GDP remains small at 2.7% but growth experienced to 2010 has put total consumer spending in Africa ahead of Russia and equal to India, albeit fragmented across many countries

- Whilst there is a wide disparity among income levels across the continent, GDP growth is positively impacting individual earnings and private consumption, migrating an accelerating number of people into the African middle class – those spending between $2- and $20 a day

- Between 2000 and 2010 the number of people in Africa’s middle class grew by 130m, forecasts from the African Development Bank suggest that at least 100m more people may become middle class by 2020

...those companies who are successful members of the existing telco value chain will need to have a hard look at their future strategies or become redundant over time

Jim Sloane, Global TMT – Africa

The future of Telecoms in Africa

The “blueprint for the brave”

Fast rewind on some key trends

Source: African Development Bank, World bank data, IMF forecasts, Deloitte ‘Rise and Rise of the African Middle Class’

Note: Africa 5.5% growth forecast: North Africa forecast (5.6%) SSA (5.5%)
Subscriber growth remains strong but is maturing – rural may be the next frontier

Fuelled by improved economic conditions, the last five years have seen Africa experience the fastest telecoms growth worldwide, which has transformed fundamental aspects of social and business life.

Mobile subscriber growth remains fastest in the world, positively impacting telecoms markets as well as African economies at large:
- African mobile telecoms have witnessed massive growth over the last decade; subscriptions CAGR reached 43% during 2006-08 and 21% 2009-11. This rapid uptake has been mainly driven by:
  - mobile services being a core life enabler to all user segments
  - favourable macroeconomic factors flowing to higher consumption
  - licensing opportunities and improved regulatory environment
- Telecommunications growth Africa has positively impacted incomes across the continent: in Sub-Saharan Africa, mobile revenues reached $35bn in 2011 representing GDP contribution of approximately 3%
- Recent Deloitte and GSMA research states that a 10% increase in mobile penetration in developing economies is likely to increase productivity by 4.2%

Mobile subscriber growth is maturing and could well saturate in the medium term in some markets if rural coverage does not increase:
- On average, mobile subscription penetration has reached 72% across Africa (3Q12) but country penetration rates vary
  - Multi-SIM ownership is widespread and actual penetration of individuals could be closer to 40% to 50% in some countries, potentially leaving room for further growth. For instance this is the case in Nigeria where mobile penetration is above 60% but human penetration just above 26% with multi-SIM ownership at c.2.4 per user
  - Further growth in subscriber levels is likely to be driven by: (1) Lower call prices and overall cost of ownership of handsets to gain access to lower income segments; (2) better network coverage in rural areas and operating models adapted to serving such remote connectivity needs; (3) mobile data connectivity (as well as M2M), which has already proved very successful in a number of countries

The drivers of future subscriber growth:
- Whilst subscriber growth is slower in more mature markets such as Egypt or South Africa, these markets continue to concentrate the largest net revenue potential due to higher income levels, large and growing populations and sustained economic growth.
- The combination of slowing subscriber growth rates and rapidly reducing ARPU levels is making revenue growth challenging in an increasing number of African markets:
  - Large countries with high subscription growth or comparatively higher ARPU levels continue to be seen as high growth markets:
    - Subscriber growth remains fastest in central African countries such as in Nigeria or Sudan and is expected to continue being concentrated in regions where penetration is comparatively low
    - Whilst subscriber growth is slower in more mature markets such as Egypt or South Africa, these markets continue to concentrate the largest net revenue potential due to higher income levels, large and growing populations and sustained economic growth.
  - Mobile markets are slowly moving towards lower revenue growth levels:
    - The drivers of future subscriber growth: Further subscriber growth is likely to continue being driven by:
      - lower call prices and lower overall cost of ownership for handsets, allowing penetration of lower income segments
      - better network coverage in rural areas and operating models adapted to serving such remote connectivity needs
      - mobile data connectivity (as well as M2M), which has already proved successful in a number of African countries (e.g. SA)
      - multi-SIM ownership in countries where it is still increasing
  - The challenge: revenue-dilutive incremental subscribers:
    - As mobile operators continue to add subscribers to their network they typically reach out to harder to reach areas or segments and often either poorer subscribers or multi-SIM owners
    - incremental subscribers often spend much less than more affluent early adopters of mobile services
    - reaching to specific niche segments or to remote areas, where competition may be less strong can be costly, diluting margins
Telecoms services (voice mostly) continue to be commoditised

Voice is still the major revenue earner for most telecommunications operators. Tough competition has meant rapid declines in revenue per minute in key markets and accelerated decline of voice ARPU.

Voice ARPU dilution through aggressive pricing and low income segments

*Typical Telcos’ revenue composition%

<table>
<thead>
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<th>Year</th>
<th>Voice</th>
<th>SMS and Other</th>
<th>Data</th>
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<tr>
<td>2009</td>
<td>61%</td>
<td>22%</td>
<td>17%</td>
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<tr>
<td>2010</td>
<td>61%</td>
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</tbody>
</table>

Voice price reductions (2009/10 and 2011)

<table>
<thead>
<tr>
<th>Country</th>
<th>2009</th>
<th>2010</th>
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</thead>
<tbody>
<tr>
<td>Nigeria</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>Libya</td>
<td>30%</td>
<td>22%</td>
</tr>
<tr>
<td>Senegal</td>
<td>20%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Note: 1. Voice (Airtime and interconnect), SMS & Other (SMS, handset revenues, accessories and others). Data (all non-SMS data).

Source: MTN Annual reports, GSMA / Wireless Intelligence, CTO 2012, Deloitte analysis

Most telcos have embarked on a journey of cost consolidation and diversification “The Blueprint”

Whilst operators are seeking to contain costs, they also seek revenue growth through service diversification: banking on data, business ICT services, mobile applications and mobile advertising

Operators are diversifying: seeking out growth levers and incremental margins in data, IT, banking, and VAS

• Commoditisation of voice has pushed a dual-pronged agenda for telcos, of both cost reduction and diversification

• Operators are seeking out higher returns in immediate adjacent markets as well as higher segment focus, typically through strategic alliances and/or acquisitions, e.g.
  - In developed markets, launch of sub-brands or MVNOs - in case they can achieve further differentiation and better capture niche segments
  - Acquisition of fixed internet and data providers to complement mobile voice/data and retain the lucrative higher income segments, to differentiate with businesses and achieve infrastructure synergies
  - Deploying mobile banking services, as operators see themselves increasingly as service enablers for all aspects of usual day life, reaching agreements with international remittance organisations as well as in-country banking groups, with utility providers and with leading retail distribution networks
  - Extending services to convergent media offerings, and partnering with content owners such as DStv or local media, with content providers (eg. Facebook), news and search (eg. Google), social networking (eg. MTN Pulse), gaming (MTN Play)
  - Advertising partnerships to potentially subsidize low income segments and tap into international markets

Identifying the appropriate execution path is challenging

• In most cases, there is only a small divide between what is eligible for partnerships and what is more relevant for MBA.
With higher traffic levels, extended network reach and targeted investments in new services, the need for operational efficiency has become even more important. Sharing and outsourcing have taken centre stage.

Increased focus on cost control, re-assessment of core areas of service value add and cost differentiation vs. non core

• In the last two years African telcos turned their focus towards cost control and operational efficiency, a result of market maturity possibly accelerated by acquisition of Zain by Bharti in 2010
• Downsizing operations is difficult as it requires an acute sense of what can be a differentiation element today or in the future, and what can be best achieved outside the organisation
• Typical areas where operators have focused their efforts have been in setting up ABC controls, outsourcing managed networks, site maintenance and security, and back office functions in SSOs

Sharing has been commonplace for African telcos but with tight margins and investments calls, releasing value through tower deals has become more attractive and has gathered pace

• There may be c.170,000 towers in Africa, and a good share of them are already shared between market players, whether through regulatory pressure (increasingly) or not
• Releasing value through towers is attractive and many operators have gone down this route, albeit under different types of models (JV, asset sale, operate and maintain, co-location rights)
• Four main outsourcers partners have emerged, Eaton, Helios, IHS and American Towers and are consolidating tower portfolios

Finding appropriate operating models to break the rural frontier

• Reaching rural areas is a necessity for many operators wishing to expand. This is no small feat as costs rapidly spiral up – for instance energy or site maintenance – whilst income levels reduce
• Super low cost models are being tested and developed, e.g. Movitel in Mozambique, Vhl, in Ghana (IDV low power solar solutions), solar chargers (Vodacom) or through projects such as ‘openBTS’, ‘the village telco’

Voice: differentiating and keeping an edge on tariffs whilst maintaining profitability

Tariff innovation is tactical, always in focus and geared towards maintaining share, stimulating demand and migrating towards data – it is also disruptive and has weighed clearly on profitability in recent periods.

Tariff innovation is still a core differentiation element for African telcos as they compete to capture niches and the low end market

• African ARPU levels have not just reduced because of reacting to low usage segments but also because of genuinely stiff price competition
• Differentiating on price is a core element of African operators tactics as markets mature and as they reach to niches and the low end market
• Because voice remains the #1 profit contributor and because elasticity is critically high, such tactics have to be managed very carefully

How to be both innovative and profitable?

• Tariff innovation aims at achieving core benefits such as usage stimulation, securing fixed spend, leveraging yield on under-used assets, service bundling or securing segment niches and communities
• Whilst pricing tools vary with objectives, most tariffs compete on the best set of ‘freebies’ to offer (e.g. free usage, cinema ticket, wifi ticket)
• Experience shows that new tariffs often have a disruptive adverse impact on markets, whether on operators’ top line or on competitors’ reaction to new pricing structures. Typical pitfalls include: – making tariffs available and attractive to too many users
– not anticipating the reaction of competition as a war game
– overlooking the road-testing of tariffs during pilots
– outpacing side-effects, which analytics can help understand, such as socially linked consumer groups, implied churn etc

Do MVNOs and sub-brands have a right to play?

• African MVNOs make c.0.5% of MVNOs globally. For many, Africa would have too low ARPU and lack price stability, lack licensing or the ability to differentiate over distribution or operating model
• They are a growing area of focus though, in particular in the most developed markets such as South Africa, Egypt or Morocco. Regional platforms could well develop across markets with regional MVNOs

A never-ending downward trend on prices through tariff ‘innovation’

MVNO economics (Illustrative) A lean model to lead on cost (Source: MCA)

Selected examples of tariff innovation, Africa

Western Europe vs. Africa

Differentiating MVNO elements

Core conditions

Existing MVNO regulation

Willing MVNO host network

High ARPU tariff stability

Differentiating distribution

Looser operating model

Segment-specific value-add

Segment-specific tariffs

Retail brands to leverage

Retail brands to leverage

Total connectivity (Home)
Africa’s total bandwidth usage grew at 85% CAGR between 2007 and 2011, a rate of growth beaten globally only by the Middle East. Mobile data now makes a noticeable contribution to operators’ revenues

Developing data infrastructure has been a challenge but significant growth in usage is now visible
- Developing international and national infrastructure for Africa has been a long process involving many stakeholders in funding the development of international hubs and domestic infrastructure
- Bandwidth usage grew at 85% CAGR in 2007-11 mainly driven by:
  - declining prices, essentially a result of submarine connectivity
  - latent demand met by increased data supply
  - increased speeds and quality of service
- Telecommunications operators are progressively evolving their business models and network infrastructure towards data connectivity

Sustained significant growth is also expected for the period 2013-17
- Cisco considers that Africa will be the fastest growing region in terms of mobile traffic and will grow by c.77% CAGR (17 fold) over the 2013 to 2017, generating by 2017 over 0.9 exabytes/month of data

Data revenues are now an important contributor to operator revenues – the profitability of data now needs to be carefully thought through
- For major players, data has already become an important contributor to total revenues. In 2012, non SMS data contributed 14% of total revenues for Vodacom and 7% for Safaricom
- As data increasingly contributes to operator margins, its standalone profitability needs to be carefully thought through, from infrastructure investment cases to subscriber acquisitions, beyond demand stimulation – building a data market is a balancing act between funding demand stimulation through lower margins (e.g. low data prices; attractive local content online: MTN and Afrinolly content application) and making data profitable in the longer run – this will require crafting an appropriate mix of access technologies (3/4G, Wi, WIMAX); and data services to grow operations in a profitable way

Data: banking on the (still oncoming) data tsunami?

Data demand: what are the use cases for the new African middle class?

Consumer data demand is driven by the need to communicate, by innovative online services and rich-form entertainment. There is a wide gap today between consumers’ ultimate aspirations and existing supply

Early adopters now consume a wide range of popular data services, accessed on mobile or fixed
- As in other geographical data demand is driven by:
  - the desire to communicate with peers
  - accessing data-based information and services
  - accessing entertainment in data rich formats
- In the African context these drivers are compounded by the impact that communications have on everyday life, such as instant messenger services (lower cost than via SMS or email)
- Innovation is apparent and drives demand, with initiatives ranging from mHealth to mMoney, eGov, jobs/cattle/crop price market monitors, weather
  – Africa is a land of innovation where tech firms (Nokia, Google) new locate their innovation labs

Mass market adoption through middle classes and richer applications will continue to fuel demand
- Most importantly, African middle classes are rapidly increasing spend on digital entertainment
- Applications are getting richer. Entertainment is a case in point as both international and local firms are rapidly building local content offerings (partnership)
- Bandwidth constrained applications based on SMS are aiming for richer formats (e.g. Facebook)
- Many new form factors are coming to market, starting with more affordable smart phones (e.g. ‘Huawei 4Afrika’) but also web TVs

Driver
Immediate network adjacencies: advanced messaging and social data communications
Features of new life and business support services & information
A strong desire for media entertainment in rich format

Consumer need
Communications with friends, family and colleagues
Life-enabling services e.g. job, transport updates, banking services, for the un-banked and under-banked
Digital entertainment in its widest possible form, delivered to individual homes or directly to people’s mobiles

Example products and services
Google SMS service: allows access to Gmail via SMS; Google search gateways is another popular service allowing searches through SMS
MTN and Orange have each developed data light versions of Facebook (e.g. ‘0Facebook’) to be accessed over low-grade mobile phones
Since May 2012, Facebook is the most visited internet site in Nigeria
Most developed very rapidly as the #1 social networking in South Africa, battling with Facebook

Daktari 12525 is a partnership between Safaricom and Call-a-doctor, it offers advice and referrals (however it does not offer online diagnosis)
Mam is an SMS based service which allows farmers to reach the real time crop prices
Citizen TV (Kisupi) is one of many African news channels also emitting online on YouTube

Voice of America keeps Nigerians up to date with an SMS based news service

YouTube partners in South Africa, Nigeria, Kenya and Uganda with content providers such as Hollywood Love and Lagos TV for local offerings

New form factors are emerging, from smartphones apps (e.g. MTN Afrinolly) to simple low cost connected web TVs (such as Vodacom’s ’Webbox’)
Traditional forms of entertainment such as pay TV remain strong, in particular Multichoice, distributed over several platforms: satellite (DSTV), online (WebTV) and mobile (DSTV Mobile), typically through partnerships. It faces hard competition, although alternatives (e.g. Top TV, DTV) struggle for share

Source: Gartner Mobile services Worldwide, 2012Q4
Note: MTN markets are SA, Nigeria, Ghana. Vodacom, SA (82%) also Tanzania, Lesotho, DRC, and Mozambique

Source: Telegraphy 2012, ITM Broadband in Africa 2012, company websites, annual reports, (1) Open Society country profile
Data demand: what are the use cases for African Businesses?

Demand for managed data has grown rapidly across Africa. Operators have expanded the richness of connectivity and IT offerings, whilst getting on board and framing the SME cloud opportunity

African operators have formally branched out dedicated business units to focus on SMEs. Specific offerings for businesses and corporates have always existed but in the course of 2010-2012, the richness of the data and ICT offerings to businesses has dramatically improved

• This is in part due to the skills and efforts put in by operators into business-focused operations over recent years
• Connectivity offerings, in particular, are seen by operators, in urban centres, to have now reached a level close to the refinement and grade levels traditionally seen in more developed economies

Rapid ICT growth, initially fuelled by demand for traditional IT is now supported by the need to grow rapidly, keep costs low and remain flexible

• Companies providing traditional IT services such as web hosting, web agency services and IT support have grown very rapidly in recent years
• Many successful African businesses are faced with a shortage of IT skills whilst pre-packaged end to end solutions are available. This triggers a rapid shift of basic functions outsourcing
• Cloud solutions are increasingly popular, in particular services that provide both business support tools at low costs, supplementing the need to buy software and run internal teams
• In a very dynamic African business environment, the need for flexibility and scalability is acute

Data supply: unleashing international connectivity to fuel growth

Once a bottleneck, international sub-sea cable and satellite connectivity have significantly improved, bringing costs down and helping to bridge the digital divide between Africa and the rest of the world

International connectivity remains the lifeblood of data offerings

• Most data connectivity is for content (whether consumer or business) that is still located outside of Africa; and international connectivity can typically make a significant portion (up to 50%) of the price of fixed broadband
• There are two elements reducing the need for international data but both are only nascent and for now fail to reach scale:
  – local exchanges (IXP) allow direct traffic routing locally. There are c.20 in Africa but co-locating carriers is hard. West Africa lacks local peering
  – more content is developed locally and African populations are avid of local content. This remains small in comparison to international offers

The launch of a handful of key sub-marine cables around the African contour has triggered a rapid price drop and mass (coastal) availability

• Between 2009 and 2012 a handful of cables launched on the Eastern (EASSy, TEAMS, SEACom) and Western (Glo-1, Main-1, ACE) coasts of Africa, triggering an almost 90% drop in international data costs at launch
• By 2014 a new generation of cables directly connecting to the Americas (WASCASE, SACS, 5a-re and Asia (BRICS) will have launched and further accelerate the phenomenon, bringing the number of cables to c.20
• Satellite connectivity costs have also dropped as a result. New satellites were launched in 2012 and are now planned for 2014 (e.g. SES Astra)
  • For market players, the ability to derive a competitive cost advantage from better access to data has the potential to be disruptive (sub-scale unit)

A tipping point: lower international costs could bring the price of data offerings below the critical $15/month level for the middle classes

• As an example of lower price levels, a $30/month subscription could potentially reduce by over half to $15 if data is sourced by sub sea cable
• In many African countries a $15/month price level can often be associated with the beginning of mass adoption, in case price reductions are passed on to the consumer

Source: Company websites, Analysts, Reports, Balancing Act, Telegraphy, MTN

Source: SES Astra marketing, Analysys Mason 2012
Notes: C-band access is widespread across the continent, due to wider beams and better signal propagation
Data supply: domestic infrastructure sharing, acting as a catalyst

Many countries still lack a national telecommunications backbone to deliver high speed data to their populations and businesses; these are getting into shape, whether through public or private initiatives.

Further investment in national backbone infrastructure is still required to deliver high speed broadband access deeper within each country.

- Whilst many African countries have benefited from access to sub-sea cable, only a few of them have the in-country national infrastructure to deliver this throughout their country to domestic regional hubs.
- Domestic connectivity is often achieved through strings of micro-wave towers and satellite connectivity, which are sub-optimal to carry large amounts of data without incurring incremental investments.

Infrastructure sharing initiatives, whether private or public, are acting as market catalysts. They need to remain consistent with wider policy making.

- Investments are being made by the private sector and by governments in developing voice and data infrastructure, often through fibre sharing.
- In doing this, national utilities have a key role to play in commercialising existing infrastructure, whether ducts, poles or actual fibre. This has been the case in many geographies, e.g. in Tanzania (TANESCO).
- The development of cross-country backbone infrastructure needs to be consistent with wider development initiatives, e.g. access to electricity.

If there is a role for public institutions to foster growth in underserved areas and address areas of market failure, then what is it?

- There exist many models for infrastructure sharing and in all of them public institutions can play a key role, either by directly taking part in the commercial/operational construct or through shaping and influencing.
- A number of regulators have decided to enforce infrastructure sharing through policy (e.g. mast sharing, urban duct sharing), such as in Ghana or ‘heavy’ regulatory moves (public infracos, functional separations).
- As private initiatives gather pace and as data becomes paramount to the private sector, the role for public intervention may have to be redefined.

A range of potential constructs for infrastructure sharing

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<thead>
<tr>
<th>Method</th>
<th>Description</th>
<th>Example</th>
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<tbody>
<tr>
<td>Asset sharing</td>
<td>Share between operators a number of identified assets, on 1:1 or more basis</td>
<td>Operators in Ghana agreeing to co-share ducts; tower sharing in Kenya</td>
</tr>
<tr>
<td>Sale and lease back</td>
<td>Identified assets are sold or transferred to a consolidating 3rd party for management, then leased back to the former owner</td>
<td>Most towercos (Etos; Helios towers) in many sub-Saharan markets. Fibre swap deals in Kenya (e.g. K2XO)</td>
</tr>
<tr>
<td>Joint ventures</td>
<td>Better control in carve-outs through X; allow external funding, allow to share future investments in underserved areas</td>
<td>MTN tower sales, world bank funded multi-operator fibre venture in Burundi; tower agreements in rural areas</td>
</tr>
<tr>
<td>PPP contracts</td>
<td>PPP contracts between telcos and public sector, built as service contracts or BOT</td>
<td>Government bulk capacity purchase in Rwanda; BOT in DRC</td>
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<tr>
<td>Public infracos</td>
<td>Independent public led structures to roll out services where private is unwilling</td>
<td>Sierra Leone: Salcab; South Africa: Broadband Infraco</td>
</tr>
<tr>
<td>Functional separation</td>
<td>Incumbents are split into operationally separate entities to facilitate retail competition at arm’s length</td>
<td>Proposed functional separation of Telkom in South Africa by the government</td>
</tr>
</tbody>
</table>

Note: 1. BOT: Build, Operate, Transfer

Urban centres are seeing widespread availability and increasingly stronger competition. Data coverage outside major centres remains limited; operators highlight costs as the key limiting expansion factor

Data network access and mobile broadband offerings in urban centres is becoming increasingly widespread … and competitive

- Whilst 2G coverage is increasing slowly in-country, 3G coverage typically remains confined to main urban centres, where the more affluent smartphone users are currently broadly located.
- Many technologies and data offerings are competing: mobile data (3G/4G), WiMAX, proprietary PAN, satellite, fibre, fixed DSL, or fixed cable in some cases, each with their own benefits and target segments.
- Many operators are taking a multi-technology approach to reaching their subscribers (e.g. both 3G and WiMAX, or cable and data). In doing so, they need to remain agile, to run converged core networks and keep a close eye on technology cost control.

Outside urban centres, access to data remains limited

- Mobile data coverage is used also for fixed nomadic internet access and plays a key role in developing data access in less urban areas.
- Further expansion will happen in time but operators face a high cost of expansion: insufficient backhaul infrastructure, limited power supply, lower demand from lower density and lower smartphone penetration, making the economics of expansion rapidly challenging.
- Operators need to identify alternative operating models for rural expansion.

3G or not 3G LTE or not LTE?

- Some countries have already launched LTE but coverage remains limited. Whilst LTE provides higher speed, wider coverage (when sub TGH) and cost efficiencies, it could still lack a mobile device base for some time.
- As a fixed/nomadic broadband alternative, it is however very attractive. Mobile broadband now surpasses fixed broadband in many markets (e.g. SA).
- For operators not having launched 3G, the temptation is high to leapfrog directly to LTE (at least for combo sites) but the downside of not allowing data access to the rapidly growing smartphone device base can be high.
IT services: a rapidly changing competitive landscape in a rapidly growing market

Africa's competitive landscape is developing rapidly in the hottest urban centres

Cisco believes MEA will be the fastest growing region for data centre workload growth

Mobile solutions are expected to grow rapidly in Africa and data centre facilities are developing rapidly in the hottest urban centres

A competitive provider landscape for data and IT services

Example cooperation models for mobile money

Mobile money: getting on to the next phase (maturity)

Almost all mobile operators now have a mobile money offering, although not as successful as M-Pesa of Kenya. Delivering more mature mobile banking services is what telcos may now be looking for

Mobile money is an attractive diversification opportunity already well proven in Kenya. Almost all mobile operators in Africa have now launched one flavour but success is taking time to replicate

> For Safaricom, M-Pesa contributes 18% of revenues, more than data (7%). In 2010 it contributed to 35% of incremental revenues
> Most African operators have launched mobile money paradigms: beyond revenues, it creates stickiness and value of the end user
> The success of M-Pesa in Kenya remains unique: over 80% of adults in urban areas have used mobile phones to send money in 2011, vs. 37% in Tanzania, 18% in Nigeria and only 7% in SA

Multi-party cooperation is an art – identifying the appropriate partners to achieve both individual strategic ambitions and overall market growth for mobile money is challenging

Mobile money typically involves many stakeholders, from mobile operators to retailers, utilities, employers and consumers and crafting an appropriate partner selection programme is crucial

Regulations dictate what mobile money services can be provided, how and by whom, and therefore influence cooperation strategies.

There could soon be a next wave of more mature mobile banking services: mobile-only banks, micro-finance, minsure

There is now a need to grow a wider range of mobile banking and insurance services on mobile phones, beyond simple payments. To achieve this, different models may need to be put in place.

Banking could take a new shape with mobile-only banks such as TYME in South Africa (MTN, SABA, retailers Pic’n’Pay and Boxer)

Micro-finance products could be further enabled by mobile, e.g. in Nigeria (cloud based micro-banking software from MTN)

mSure (e.g. MTN group agreement with Hollard)

Mobile phone used to send money

Percentage aged 15+, 2011

Media: how to make middle classes enter a mobile digital age?

Telcos have successfully taken a more traditional dual-pronged owning/partnering approach to content delivery. They are now succeeding in bringing digital media experiences to the next tier of the middle class.

African media: highly fragmented and complex but changing fast through digital/mobile engagement and talented local creation
- A wide range of cultures and legacy local media makes the African media landscape very fragmented – a challenge for the largest scale media operations such as Multichoice (DSTV)
- Modes of content delivery are changing fast, from analogue state or regional TV and radio broadcasters and newspapers, and DTH, to DTT (albeit slowly), mobile VAS or fixed cable/IPTV triple-play
- Content creation is shifting from international or South Africa to more local hubs that are developing fast (Nolly/River/Zolly-wood) and African populations are avid of such locally-relevant content

Media for the middle class: strategies for top and bottom
- The top: enjoys premium entertainment through a variety of channels, triple or quad-play offerings and multi-screen experiences – needs to be retained
- The rest: mobile broadband – enabled phones as first ever screens, before TV or PC. Simple VAS are enjoyed on the small screen and are a stepping stone to more enriched experiences – needs to be convinced to spend on media and charged a low fee (sub $10 or $5)

In developing media experiences, telcos need to strike a careful balance between core and non-core, and owning vs. partnering
- core skills are local market knowledge, technology adaptation and integration, multi-format delivery, devices, promotion of content (app stores) as opposed to content creation or aggregation, albeit if the latter needs to be kick-started (e.g. app incubation centres)
- there are many opportunities for telcos to define seamless customer journeys, for instance through adapting digital apps to low connectivity (Facebook), multi-screen (add mobile to an existing media offering); hybrid TV and wireless models (possibly with DTT)

Mobile advertising: set to grow

Mobile advertising is maturing in many markets globally as a powerful and direct advertising medium. The specificities of the African continent could make it even bigger for African telcos – up to $1.3b by 2016

Global advertising spending is shifting to emerging markets and to Africa in particular as the next frontier of global consumers
- Mobile phones are the most ubiquitous personal technology in Africa; phones are a powerful, albeit intrusive, advertising media
- The African mobile advertising market could be worth only $136m in 2012 but it could be supply-constrained rather than demand-constrained – it could possibly increase to $1.3b by 2016
- advertisers, both global and local are delivering mobile ad campaigns and want more of these in particular in Africa. Firms like Unilever, Coca-Cola and Reckitt-Benckiser are committing increasing ad spend levels to the continent
- however the infrastructure typically does not support advertising medium beyond urban districts and African consumers are overall very hard to reach with any type of focus, in particular the next tiers of the African middle class
- some stakeholders are getting organised,
- global agencies buying into Africa, rapidly developing affiliate networks; mobile ad networks and mobile agencies
- mobile browsers, such as Opera, are deploying advanced solutions for search and display, in line with online

Smartphone era and the role for telcos
- Smartphones represent only a very small proportion of phones in Africa, apart from leading markets such as South Africa (17%). But this will increase rapidly, possibly faster than most expect, through the grey market (e.g. second hand phones from W/E and ME) or low-cost smartphone initiatives (e.g. 44on44; Microsoft, Huawei)
- For telcos, in may be imperative to develop a structured approach to marketing their valuable digital assets, for instance through a consolidated platform (e.g. WERE in the UK), advanced analytics or controlled portals and browsers (Bada)

Source: Informa Telecoms and Media 2012
Note: 1. Informa Telecoms and Media 2012
18
The future of Telecoms in Africa: “The blueprint for the brave” 19
Key drivers for telecoms M&A and current opportunities

Key drivers for telecoms M&A: not necessarily about hype

A range of high level deal rationale for some typical telco M&A situations (non exhaustive)

<table>
<thead>
<tr>
<th>Change</th>
<th>A selection of key benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cross-border</td>
</tr>
<tr>
<td>Integration of telecoms operations</td>
<td>• Scale benefits integrate/outsource key support functions across geographic footprints</td>
</tr>
<tr>
<td></td>
<td>• Lower competition in case foreign operators consolidate targets within the country</td>
</tr>
<tr>
<td></td>
<td>• Bring in external skills and competencies and drive through efficiencies not previously identified</td>
</tr>
<tr>
<td></td>
<td>In-country</td>
</tr>
<tr>
<td></td>
<td>• Further scale benefits from rationalisation of local contracts and infrastructure consolidation</td>
</tr>
<tr>
<td></td>
<td>• Sanitize competition level (requires regulatory approval)</td>
</tr>
<tr>
<td>2</td>
<td>IT, site maintenance / security and support functions</td>
</tr>
<tr>
<td>Reassessment of core and non-core functions as well as core and non-core infrastructure</td>
<td>• Cut staff costs through outsourcing non-core support functions, possibly to an existing provider/vendor</td>
</tr>
<tr>
<td></td>
<td>• Support functions typically include customer support, IT management &amp; maintenance, admin, finance, utilities</td>
</tr>
<tr>
<td></td>
<td>Towers and other infrastructure (e.g. fibre)</td>
</tr>
<tr>
<td></td>
<td>• Benefit from lower utility/maintenance costs; access lower costs for expansion (rural), sustain lower prices</td>
</tr>
<tr>
<td></td>
<td>• Mutualise tower/fibre investment, raise cash rapidly for debt repayment, lower debt levels in future</td>
</tr>
<tr>
<td></td>
<td>• Retain control over the carved out assets if the structure allows (e.g. MTN tower JVs)</td>
</tr>
<tr>
<td></td>
<td>Network outsourcing</td>
</tr>
<tr>
<td></td>
<td>• Network outsourcing deal with network vendor such as Ericsson, Huawei or Alcatel Lucent</td>
</tr>
<tr>
<td></td>
<td>Wholesale data</td>
</tr>
<tr>
<td></td>
<td>• Secure lower-cost model, achieve cost synergies in core network, reduce data costs (international)</td>
</tr>
<tr>
<td></td>
<td>Data centre capabilities</td>
</tr>
<tr>
<td></td>
<td>• Consider outsourcing the management of data centre to local providers or global players such as IBM</td>
</tr>
<tr>
<td></td>
<td>Distribution</td>
</tr>
<tr>
<td></td>
<td>• Direct impact on cost sales &amp; marketing opex from downstream consolidation and integration benefits</td>
</tr>
<tr>
<td></td>
<td>• Service bundling and further in-store presence leveraging move from prepaid to post-paid or hybrid</td>
</tr>
<tr>
<td>3</td>
<td>Data connectivity</td>
</tr>
<tr>
<td>Diversification</td>
<td>• Jump-start data access services from acquiring small brands, as well as staff expertise</td>
</tr>
<tr>
<td></td>
<td>• Secure existing high-value subscribers seeking data connectivity</td>
</tr>
<tr>
<td></td>
<td>IT/Data centre</td>
</tr>
<tr>
<td></td>
<td>• Leverage small data centre player with expertise in hosting/managed data/IT for BPO trend &amp; SME cloud</td>
</tr>
<tr>
<td></td>
<td>Media</td>
</tr>
<tr>
<td></td>
<td>• Capture opportunity for higher entertainment spend from wealthier middle/high income African households</td>
</tr>
<tr>
<td></td>
<td>• Jump-start media/content strategy from acquiring/developing sought-after content (studios/rights)</td>
</tr>
<tr>
<td></td>
<td>• Differentiate through non-replicable content (e.g. live broadcasts, new/dating service)</td>
</tr>
<tr>
<td></td>
<td>Other industry and services sectors</td>
</tr>
<tr>
<td></td>
<td>• e.g. financial services (mobile money), advertising agency, other consumer business</td>
</tr>
<tr>
<td></td>
<td>• Differentiation through service bundling, partnerships with specific brands or retail networks</td>
</tr>
<tr>
<td></td>
<td>• Secure key assets (e.g. regulatory approvals for mobile banking) or core competencies (e.g. web agency)</td>
</tr>
</tbody>
</table>
1. Integrating telecoms operations: cross border and in-country mergers

In-country consolidation typically raises higher benefits than cross-border, from integration across all internal functions, re-use and/or disposal of duplicate infrastructure or higher buyer power at local level

- For smaller operators or even some regional players, scale and operational know-how is likely to be increasingly critical to financial performance
  - Many markets experienced a period of accelerated price declines following the acquisition of Zain by Bharti in 2010. Higher market pressures resulted in degraded financial performance for market players unable to flex their cost base and offset declining margins
  - Nigerian CDMA operators are a case in point – faced with very high market pressure in urban centres, over-crowded telecoms supply and difficulties to expand outside cities, merging was mandatory

The level of benefits resulting from integrating operations, both cross-border or in-country will depend on telecom sub-sectors

- For corporate data providers, benefits could come from demand aggregation as to benefit from a more streamlined use of international capacity (although its cost is decreasing)
  - for broadcasters, the aggregation of content over a larger subscriber base or the aggregation of advertising agencies across a larger base of broadcast platforms could result in respectively lower direct costs or higher revenues

In-bound investments from telecoms operators based outside Africa is possible, as much as exits from international investors

- 2011 and 2012 proved that a number of global heavyweights such as Vimpelcom, China Mobile, America Movil, Singapore Telecom or others such as Korea Telecom or Viettel, could have some interests in African operations

- Exiting the African telecommunication markets is also on the cards for several companies, whether as a result of a corporate and geographic refocus (Vivendi) or because investments haven’t developed as much as initially expected (Essar)

Some typical benefits of a cross-border merger

<table>
<thead>
<tr>
<th>Example topic</th>
<th>Example implications</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing &amp; advertising</td>
<td>Concepts, research, pilots, sales tools, advertising campaigns can be done at regional level, then implemented locally</td>
<td>++</td>
</tr>
<tr>
<td>Planning / engineering</td>
<td>Outsource business planning and radio engineering to group level, leave operational implementation local</td>
<td>+</td>
</tr>
<tr>
<td>Support functions</td>
<td>HR, admin, financial planning, IT support, charging planned remotely and implemented locally where needed</td>
<td>++</td>
</tr>
<tr>
<td>Group level</td>
<td>Standardize technical purchases and execute procurement at group level in order to leverage scale</td>
<td>++</td>
</tr>
</tbody>
</table>

Additional benefits in the case of in-country consolidation

<table>
<thead>
<tr>
<th>Example topic</th>
<th>Example implications</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local contracts</td>
<td>Leverage scale for the negotiation of all local contracts (energy, rent, distribution)</td>
<td>++</td>
</tr>
<tr>
<td>Duplicate infrastructure</td>
<td>Avoid rent on duplicate coverage sites Reposition sites for added coverage</td>
<td>++</td>
</tr>
<tr>
<td>Data network leases</td>
<td>Consolidate demand from data / traffic sites and leverage lower demand per site</td>
<td>+</td>
</tr>
<tr>
<td>Operational integration</td>
<td>Integrate operational teams (lower staff) Set higher operational targets for tracking of dealer network, sites maintenance</td>
<td>++</td>
</tr>
</tbody>
</table>

2. Reassessing core and non-core functions

Divestment from non-core functions is already an active trend; the pace of tactical divestments from operational functions or infrastructure could continue at this sustained pace over the coming years

Selective outsourcing: identifying the appropriate activities, most relevant partners and most beneficial terms

- Selling core internal functions to outside companies likely to consolidate such services across industry sections is likely to raise rapid cost benefits if contracts are negotiated well
- In assessing core and non-core activities it is crucial to set the ambition target and the medium term strategic vision – outsourcing activities deemed non-core today could be fatal to a longer term strategic position

Depth of the outsourcing programme

- For each outsourced activity, the depth to which a separation is a strategic decision in itself and can raise varying levels of cost / benefits and risks. There are some basic elements that can be outsourced and others, which bear additional elements of risk
  - Customer care – as a basis, outsourcing customer care can be rapidly outsourced for vanilla products (mobile voice), for which standard scripts can be written and for which standard processes can be triggered; outsourcing support for new products is a difficult choice and depends on the outsourcer as a potential lack of flexibility in rapidly adapting new scripts and processes could potentially impact customer satisfaction
  - Site maintenance – outsourcing maintenance of sites for what regards security, utilities (power) as a basis, with replacements and site upgrades as an option for standard technologies (SS), should new technologies be considered a core differentiating asset
  - IT Services – outsourcing IT services for the maintenance of internal local servers, basic connectivity, user access as a basis, as an option outsourcing network charging and billing, network support systems and monitoring to a group regional entity

Some typical benefits of a functional outsource programme

<table>
<thead>
<tr>
<th>Example topic</th>
<th>Example implications</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing FTE inefficiency</td>
<td>Activity level has dropped (e.g. call centre improving efficiency but the number of subscribers does not increase)</td>
<td>++</td>
</tr>
<tr>
<td>Estimated efficiency gain</td>
<td>Based on benchmarks, imposing target efficiency levels to the outsourcer, to a level close to industry best practice</td>
<td>+</td>
</tr>
<tr>
<td>FTE transfer to outsourcer</td>
<td>Transfer of FTEs through the outsourcer programme, e.g. to a network vendor for the maintenance of sites</td>
<td>++</td>
</tr>
<tr>
<td>Carve-out and re-integrate</td>
<td>Carve-out for a period of time and include put option on re-integration after a period of time, define and monitor performance levels and trigger synergies</td>
<td>+</td>
</tr>
</tbody>
</table>

Some typical benefits of an infrastructure carve out (e.g. towers)

<table>
<thead>
<tr>
<th>Example topic</th>
<th>Example implications</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short term cash injection</td>
<td>Cash through the asset sale, minus transition costs, but triggers EBITDA reduction through the lease</td>
<td>++</td>
</tr>
<tr>
<td>Reduce site costs on existing sites</td>
<td>Lower site maintenance and utility costs in existing coverage areas (e.g. 15% saving typically) by merging two sites together</td>
<td>+</td>
</tr>
<tr>
<td>Reduce minimum investment for new sites</td>
<td>Sharing infrastructure for new builds can make rural sites economical again, despite increasing rollout costs as a result of distance and lower rural income levels</td>
<td>+</td>
</tr>
</tbody>
</table>
3. Diversifying the telecoms services portfolio and beyond

M&A has been most active between telecoms operators and ISPs and/or ICT providers, however deals have slowed down between 2011 and 2012, versus the level of activity seen in 2009-10

Telecoms operators are having a hard think at the range of services, which are still strategic and those, which are best served with partners

● Media strategies have not worked for all market players; some have decided to diversify from former investments in movie creation (e.g. Orange)

Acquiring ISPs has remained a hot topic in recent years

● Several mobile operators have sought to acquire local ISPs. Safaricom in particular has been most active in so doing

● There are key reasons why acquiring ISPs is attractive, including:
  - key technical staff, knowledge of data centres, IT outsourcing etc.
  - scarce assets, e.g. transmission infrastructure, rights of way (e.g. for overhead fibre), spectrum
  - fill unused data capacity by aggregating demand

A selection of acquisitions of ISPs, data providers and IT firms

<table>
<thead>
<tr>
<th>Country</th>
<th>Date</th>
<th>Buyer</th>
<th>Target</th>
<th>Sub-sector</th>
<th>Deal [Stn]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zimbabwe</td>
<td>07/14</td>
<td>Econet Wireless Zimbabwe Ltd</td>
<td>Liquid Telecommunications Ltd</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Rwanda and Zamb</td>
<td>12/13</td>
<td>HS Holding Ltd</td>
<td>Mobile Townex in Rwanda and Zambia</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Tanzania</td>
<td>11/13</td>
<td>Vodacom Group Ltd</td>
<td>Cavally Holdings Ltd</td>
<td>242.75</td>
<td></td>
</tr>
<tr>
<td>GRC</td>
<td>11/13</td>
<td>Bharti Airtel Ltd</td>
<td>Warid Congo SA</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>Algeria</td>
<td>10/13</td>
<td>Smart Link Com SA</td>
<td>Commerce SA</td>
<td>1.4</td>
<td></td>
</tr>
<tr>
<td>Nigeria</td>
<td>06/13</td>
<td>Millicom International Cellular SA</td>
<td>Jumia</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Kenya</td>
<td>05/13</td>
<td>Nippon Telegraph &amp; Telephone Corp</td>
<td>Aircel/Kenya Group Ltd</td>
<td>43.76</td>
<td></td>
</tr>
<tr>
<td>Tanzania</td>
<td>11/13</td>
<td>Vodacom Group Ltd</td>
<td>Cavally Holdings Ltd</td>
<td>242.75</td>
<td></td>
</tr>
<tr>
<td>West Africa</td>
<td>09/12</td>
<td>Sky Vixen</td>
<td>Airtel</td>
<td>VSAT data</td>
<td>3.3</td>
</tr>
<tr>
<td>East Africa</td>
<td>10/11</td>
<td>Safaricom</td>
<td>Seven Seas Tech</td>
<td>IT services</td>
<td>n/a</td>
</tr>
<tr>
<td>South Africa</td>
<td>12/10</td>
<td>Bus com</td>
<td>UCS</td>
<td>IT outsourcing</td>
<td>90</td>
</tr>
<tr>
<td>Kenya</td>
<td>10/10</td>
<td>Safaricom</td>
<td>Inera, SGI W</td>
<td>WiMax</td>
<td>n/a</td>
</tr>
<tr>
<td>Zambia</td>
<td>08/10</td>
<td>Vodacom</td>
<td>Altronnect</td>
<td>ISP</td>
<td>n/a</td>
</tr>
<tr>
<td>Kenya</td>
<td>08/10</td>
<td>Safaricom</td>
<td>PCC</td>
<td>Buwim ISP</td>
<td>n/a</td>
</tr>
<tr>
<td>Nigeria</td>
<td>08/10</td>
<td>Inveslec</td>
<td>NIS</td>
<td>Telecom tech</td>
<td>75</td>
</tr>
<tr>
<td>Egypt</td>
<td>07/10</td>
<td>ECMIS</td>
<td>Link Opt Network</td>
<td>Buwim ISP</td>
<td>130</td>
</tr>
<tr>
<td>South Africa</td>
<td>07/10</td>
<td>Primaide</td>
<td>Axx Tech</td>
<td>IT distrib</td>
<td>23</td>
</tr>
<tr>
<td>South Africa</td>
<td>07/10</td>
<td>NTT</td>
<td>Dimension data</td>
<td>IT, DC &amp; infra</td>
<td>282.2</td>
</tr>
<tr>
<td>Egypt</td>
<td>07/10</td>
<td>ECMIS</td>
<td>Link Opt Network</td>
<td>Buwim ISP</td>
<td>130</td>
</tr>
<tr>
<td>Tunisia</td>
<td>06/10</td>
<td>Tuniscom</td>
<td>Topaz</td>
<td>Buwim ISP</td>
<td>24</td>
</tr>
<tr>
<td>Kenya</td>
<td>11/09</td>
<td>Safaricom</td>
<td>One Comm</td>
<td>Buwim ISP</td>
<td>2.8</td>
</tr>
<tr>
<td>South Africa</td>
<td>06/08</td>
<td>Tata</td>
<td>Network</td>
<td>Business data</td>
<td>n/a</td>
</tr>
<tr>
<td>South Africa</td>
<td>01/08</td>
<td>Comvergence</td>
<td>FutureCell</td>
<td>Business data</td>
<td>10</td>
</tr>
</tbody>
</table>

Acquiring data centres and IT outsourcing capabilities

● Cloud is rapidly becoming important for many telcos; small businesses as well as public administrations require some form of cloud service

● Large IT players, for instance from India (Tata TCS, IBM) are entering the African continent but lack hands-on local knowledge; smaller players are developing local data centre solutions rapidly, for Teraco in South Africa (600 sq m in Cape Town, 640 sq m in Joburg)

● Telecoms operators are following suit, have built extensive data centres (e.g. Telkom’s 9700 sq m Cybernet) and some have already developed comprehensive service portfolios.

● In this context, MBA can serve multiple purposes, either with regard to accelerating market timing, shaping its structure, or acquiring specific skills and technologies (e.g. lightweight, scalable, low-cost infrastructure)

Current opportunities – General themes

Various factors set the stage for M&A opportunities in Africa

<table>
<thead>
<tr>
<th>General themes of opportunities in Africa</th>
<th>Infrastructure outsourcing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidation</td>
<td>• At competition intensification and growth slowdown in Africa, consolidation efforts will begin to drive M&amp;A transactions as smaller players exit. The African telecommunications sector is controlled primarily the 4 large players, MTN, Vodafone, Bharti and France Telecom.</td>
</tr>
<tr>
<td>New licenses</td>
<td>• Increased interest in infrastructure deals as operators consider strategic options and costs of infrastructure ownership, with tower and cable being the key infrastructure under consideration.</td>
</tr>
<tr>
<td>Evaluation of MVNOs</td>
<td>• Governments like Kenya have embraced the network sharing model with a PPP model for a single wholesale LTE network as a route to increasing the availability of broadband services</td>
</tr>
<tr>
<td>Mobile Money</td>
<td>• As the region moves onto more advance networks “3G and 4G”, new license auctions/ awards can be expected. Further as Africa transitions to digital television, spectrum availability for the telecommunications sector will increase.</td>
</tr>
<tr>
<td>Triple play</td>
<td>• With voice revenues dropping due to price wars, most players have or are shifting focus to data. The demand for fixed data and particularly mobile data is increasing. The various undersea cables bringing faster connectivity to Africa is opening Africa to the possibility of triple play services. In Kenya, the Wananchi Group is offering triple play services. As this space evolves, MBA deals for companies with data licenses where converged licenses are not in effect and content and media providers may drive smaller size MBA deals.</td>
</tr>
</tbody>
</table>

- fill unused data capacity by aggregating demand
- raise back-office synergies by integrating smaller companies
- leverage the existing subscriber base to push new services

It providers, providers of server space and storage, IT management and data centre products acquire business data connectivity providers to expand their range of services and extract higher value from subscribers.

It providers, providers of server space and storage, IT management and data centre products acquire business data connectivity providers to expand their range of services and extract higher value from subscribers.

The “blueprint for the brave” 25
Many African governments have decided to privatise the incumbent operators, save for a few

### Fixed and Mobile Telecommunications

<table>
<thead>
<tr>
<th>Company</th>
<th>Opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ethiopia (mobile)</strong></td>
<td>• Large mobile subscribers such as MTN and Vodacom have set up business in the</td>
</tr>
<tr>
<td></td>
<td>country, given Ethiopia’s 16.8 million mobile subscribers and a mobile penetration</td>
</tr>
<tr>
<td></td>
<td>rate of 18.9%.</td>
</tr>
<tr>
<td></td>
<td>• Ethiopia’s ministry of communications and information technology said it has</td>
</tr>
<tr>
<td></td>
<td>received applications from 2,188 firms to provide VAS since the government gave</td>
</tr>
<tr>
<td></td>
<td>approval for private firms to offer non-voice services. It is not certain how</td>
</tr>
<tr>
<td></td>
<td>many firms the government intends to award concessions.</td>
</tr>
<tr>
<td><strong>Comores Telecom</strong></td>
<td>• The government of the Union of Comoros has launched the privatisation of its</td>
</tr>
<tr>
<td></td>
<td>national PTO Comores Telecom (Comtel) via an international auction and has</td>
</tr>
<tr>
<td></td>
<td>invited expression of interest for 51% stake</td>
</tr>
<tr>
<td><strong>Sonitel &amp; Sahelcom</strong></td>
<td>• The Niger government is reported to be looking for a new buyer for Sonitel and</td>
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<td></td>
<td>Sahelcom after the deal with LAP green was cancelled for failure to meet the</td>
</tr>
<tr>
<td></td>
<td>terms of the privatisation</td>
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<tr>
<td><strong>Zamtel (fixed / mobile)</strong></td>
<td>• The Zambian government has seized 75% of LAP green’s stake in Zamtel. Although</td>
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<td></td>
<td>LAP green has filed a petition to the Lusaka high court this could be an opportunity</td>
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<tr>
<td></td>
<td>for another operator to acquire the stake and operate in Zambia</td>
</tr>
<tr>
<td><strong>Madagascar</strong></td>
<td>• Fixed telecoms incumbent and mobile operator Telma is rumoured to be for sale, it</td>
</tr>
<tr>
<td></td>
<td>is owned at 66% by Distacom and at 32% by the State</td>
</tr>
</tbody>
</table>

### Current opportunities – Other private sector opportunities (Media, ISPs, Mobile tech)

There are a number of private opportunities in Africa, both for mobile operations or data players / Internet providers

<table>
<thead>
<tr>
<th>Company</th>
<th>Opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maroc Telcom (mobile)</strong></td>
<td>• As part of Vivendi’s strategy to divest its telecom assets, a 53% stake in Maroc</td>
</tr>
<tr>
<td></td>
<td>Telecom has been sold. The deal is expected to complete in early 2014.</td>
</tr>
<tr>
<td><strong>Vimpelcom (mobile)</strong></td>
<td>• As part of their exit plan from the African market, they have sold Burundi (U-com</td>
</tr>
<tr>
<td></td>
<td>Burundi) and Central African Republic (Telecel-RCA).</td>
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<tr>
<td></td>
<td>• Sale did not include Zimbabwe (Telecel Zimbabwe) which is to be negotiated</td>
</tr>
<tr>
<td></td>
<td>separately. Algeria government could exercise its right to acquire Orascom Algeria</td>
</tr>
<tr>
<td></td>
<td>once it’s put up for sale.</td>
</tr>
<tr>
<td><strong>Mattel (mobile)</strong></td>
<td>• Tunisie Telecom (TT) is reported to be close to selling its majority stake in</td>
</tr>
<tr>
<td></td>
<td>Mauritania telco Mattel.</td>
</tr>
<tr>
<td><strong>Telecom Egypt (fixed/ mobile)</strong></td>
<td>• Telecom Egypt is reported to be awaiting government’s decision on possible sale of</td>
</tr>
<tr>
<td></td>
<td>its Vodafone Egypt stake.</td>
</tr>
</tbody>
</table>
Several fixed or mobile telecom licences are expected to be awarded in the short to medium term

<table>
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<tbody>
<tr>
<td>Nigeria (fixed)</td>
<td>• The Nigerian Communications Commission (NCC) will begin the actual auctioning of the 2.3GHz spectrum licence between two pre-qualified bidders, Globacom Limited and Bitflux Communications Limited.</td>
</tr>
<tr>
<td>Sudatel</td>
<td>• Sudatel is interested in expanding its operations to Chad, Niger and Mali where opportunities for telecom licenses remain.</td>
</tr>
<tr>
<td>Togo (mobile)</td>
<td>• The government of Togo will grant a license to a “full-blown” mobile virtual network operator (MVNO) in the country, with the Ministry of Posts and Telecommunications confirming it has issued a notice of call for expressions of interest, which will be followed by a ‘restricted’ tender.</td>
</tr>
<tr>
<td>Angola (mobile)</td>
<td>• The regulator is expected to issue third mobile license.</td>
</tr>
<tr>
<td>Sao Tome and Principe (mobile)</td>
<td>• Sao Tome has launched a tender for award of a second telecommunications license and assignment of capacities on the international submarine cable ACE. Unitel only applicant to meet requirements for second telecom license.</td>
</tr>
</tbody>
</table>
Deloitte global M&A presence

A global network of over 6,000 dedicated professionals providing specialist advisory across the deal life cycle

Deloitte’s M&A Global Reach

Transaction Lifecycle

Deloitte believes its role as advisors is to customize services to our clients’ needs, providing deep expertise, while continuing to deliver the advantages of having one integrated M&A advisor.
Deloitte African footprint

A direct local presence in 34 African countries and service S1

Deloitte works for the major global fixed and mobile operators. We provide professional services to most of the largest operators and as such are able to directly contact CEDs and CFOs of potential buyers and sellers, for both private sales, telecoms licences or privatisations, for instance Telkom South Africa, Etisalat, Bharti Airtel, Saudi Telecom, Vodafone, France Telecom. Our reach into these operators is unrivalled.

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  - Transaction services
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  - Supply Chain Management
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  - Valuation Services
  - Human Capital
  - Investment Banking
  - Technology Integration Outsourcing

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- In Africa, Deloitte has offices in 22 African countries
- The UK TMT practice, the Portugal TMT practice, the French TMT practice and the South African TMT practice act as centres of excellence for African telecoms clients

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- Deloitte offices
- Area serviced by Deloitte’s African offices
- Countries serviced by other Deloitte offices (Middle East)
Deloitte TMT – Our global presence

Over 15,000 practitioners
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<th>Contact Details</th>
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