MIDDLE EAST & NORTH AFRICA COLOCATION MARKETS

Cloud, Hyperscale, and the Golden age of MENA Datacenters

A Xalam Investor Report

REPORT SUMMARY,
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& SAMPLE PAGES

OCTOBER 2018

Report summary: The golden age has come, for Middle East and North African data centers

- **Middle East and North African (MENA) data center colocation markets have long been the object of one of the most peculiar dichotomies in the global digital economy**. MENA digital markets are increasingly deep, supported by a population of 300m, nearly 200m active broadband connections, and a GDP of around $2 trillion.

- The region is home to some of the highest levels of broadband penetration in emerging markets, financial markets with global reach and a theater for some of the most ambitious exercises in digital transformation in the modern world. According to Cisco, the Middle East and Africa region will have the fastest rate of mobile data traffic growth in the world through 2021.

- **And yet, in the midst of such a digital boom, the MENA data center colocation market – which truly, should be thriving in light of the above-, has comparatively been plodding along.** Until 2018, the MENA region only had one public cloud facility by one of the world's top-5 hyperscale cloud providers. Half the countries in MENA have fewer than 5 edge nodes by global CDN and Internet providers, an illustration of the caution with which global Internet players have approached the region.

- **Colocation space and power supply grew in the mid-teens between 2014 and 2017, a solid, if unspectacular pace**, held back by high costs of wholesale connectivity and the ultra-dominance of a small number of telcos in key markets.

- This, however, is changing; **a colocation market that has heretofore been playing catch up is now on the cusp of considerable growth**. More enterprises are adopting colocation services. Six of the top ten global CDN players now have edge nodes in the region. The world's largest carrier-neutral colocation provider, Equinix, is expanding its facilities in the Middle East.

- And in the most significant illustration of transformation, at least 9 public cloud data centers are slated to become operational in MENA in 2019. Hyperscale demand is transforming colocation demand patterns and volumes, altering the colo market's traditional competitive structure, business models, and the very nature of the region's data center facilities.

- **We project MENA colocation supply capacity to nearly double between 2017 and 2020,** with revenue exploding to a 20%+ run-rate, and ushering in what we see as a golden age for the region's multi-tenant data centers.

- **This report provides an analysis of this ongoing transformation,** including the nature of the current data center infrastructure, enterprise demand for colocation, revenue structure, and hyperscale cloud provider impact on supply, revenue, and overall competitive market structure.

- **A reference report for all stakeholders and investors in the MENA colocation and Internet infrastructure markets.**

Sample key points explored in this report

The insights derived from our research on Middle East and North African data center colocation markets are distilled in this report, covering critical key questions and points, including:

- Why we say MENA colocation growth through 2017 was largely unspectacular – and why
- Which colo markets are the largest in the region
- Major trends in enterprise adoption of colocation services in key markets
- The rise of carrier-neutral, wholesale players like Khazna and Gulf Data Hub
- The impact of hyperscale on rising markets like Oman, Bahrain and Morocco
- Our space and colocation power forecasts for MENA, on a country by country basis
- A ranking of the largest providers of colocation capacity, along with the largest facilities
- The impact of the financial services sector on colo market growth
- The impact of Google Cloud and Oracle on KSA colocation growth
- Why the Egyptian colocation market is not as big as it should be
- Key player ranking and positioning across key markets
- Why CDN infrastructure providers have stayed out of North Africa
- AWS's surprising selection of Bahrain for its Middle East region
- Why Moroccan colocation growth is accelerating
- What is driving MENA's projected colo boom
- And more..

The Corporate/Premium version of this report includes 40 supporting charts and data points in Excel format (See Report Specs).

Report Structure

PART 1

MENA DATA CENTER COLOCATION: BREAKING DOWN THE NUMBERS

PART 2

THE HYPERSCALE IMPACT ON MENA COLOCATION

PART 3

MENA COLO OUTLOOK: IT'S A DATA CENTER BOOM

PART 4

COUNTRY ANALYSIS: UAE, KSA, TUNISIA, MOROCCO, EGYPT

Markets & Companies Covered

This report focuses on Middle East and North Africa at a broad level, with countries covered at varying levels of depth. 10 countries and 50+ companies are mentioned in this report. The list below highlights countries and companies covered in depth, or with some regularity.

Markets Covered with Good Depth

- Algeria
- Bahrain
- Egypt
- Kuwait
- Morocco
- Oman
- Qatar
- Saudi Arabia
- Tunisia
- United Arab Emirates

- The report includes detailed profiles for Egypt, Morocco, Tunisia, Saudi Arabia and the UAE (see Table of Contents)

Companies Mentioned

- Alibaba
- Amazon (AWS)
- Dataxion
- eHost Data Fort
- EO Datacenter
- Equinix
- Etisalat
- Etix Everywhere
- Google
- GPX
- Gulf Data Hub
- IBM
- Inwi
- ITC Saudi Arabia
- Khazna
- Maroc Telecom
- Medasys
- Microsoft
- Mobily
- N+One
- NourNet
- NxTVN
- Omantel
- Ooredoo
- Oracle
- Raya Data Center
- STC
- Telecom Egypt
- Tunisie Telecom

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List of Charts (2)

MENA MTDC Country Analysis

The analysis in this report is powered by the Xalam MENA colocation dashboards

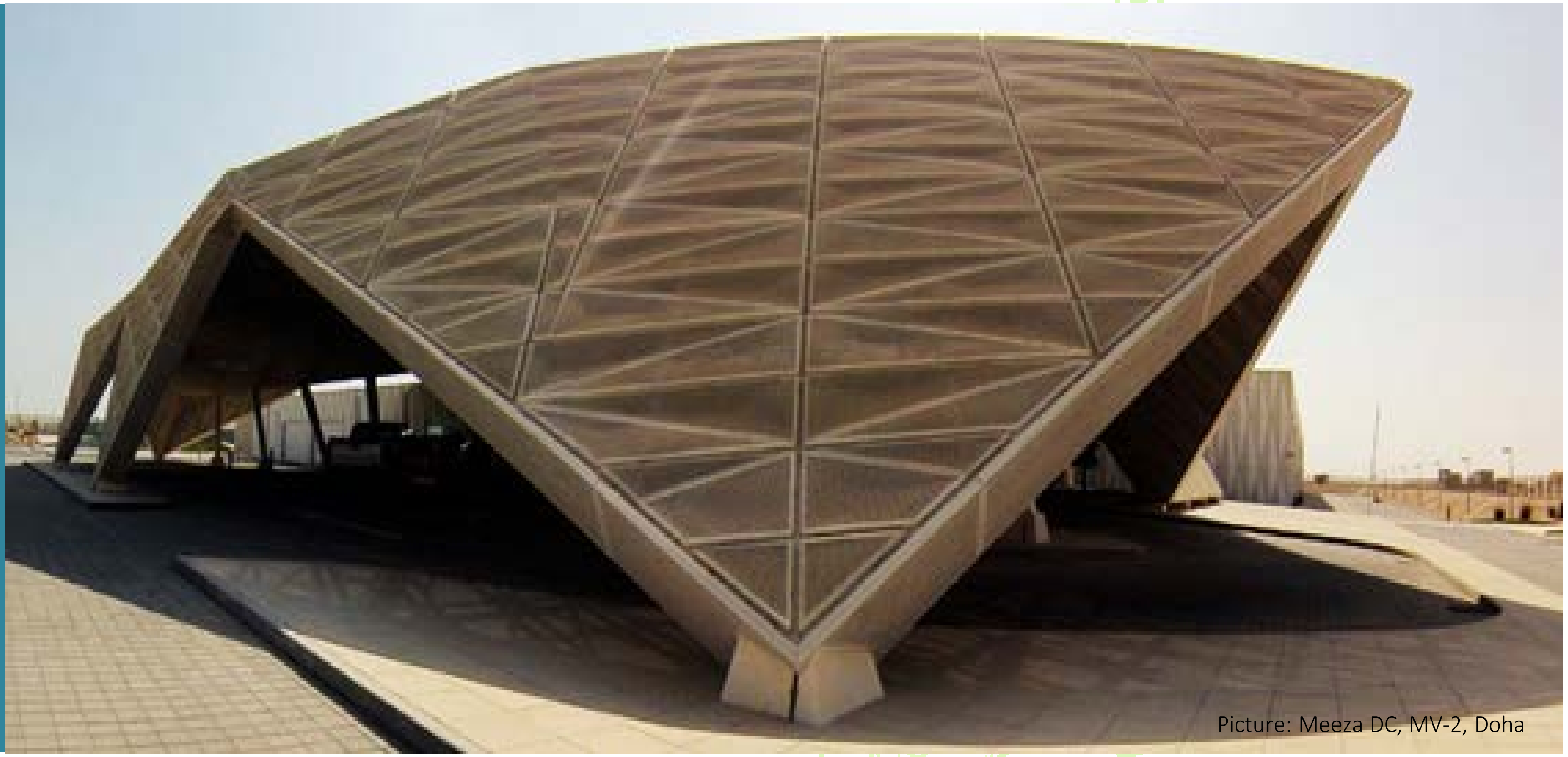
- See MENA colocation data at country, metro level
- 10+ country markets. 30+ metros. 150+ facilities.
- Get full detail on estimated colo demand and supply–
- Space, power, facilities, revenue by demand segment, etc.

- **A powerful, AWS-based, interactive visualization tool** - that transforms how you see and absorb MENA market data
- **Combining years of extensive research,** data collection, colo market analysis and modelling with the latest analytics technology
- **Flexible access options – 30-day or one year**

Request a demo today – hello@xalamanalytics.com

SAMPLE PAGES

The following are sample pages for this report, provided for indicative purposes only, with edits, and in no particular order.

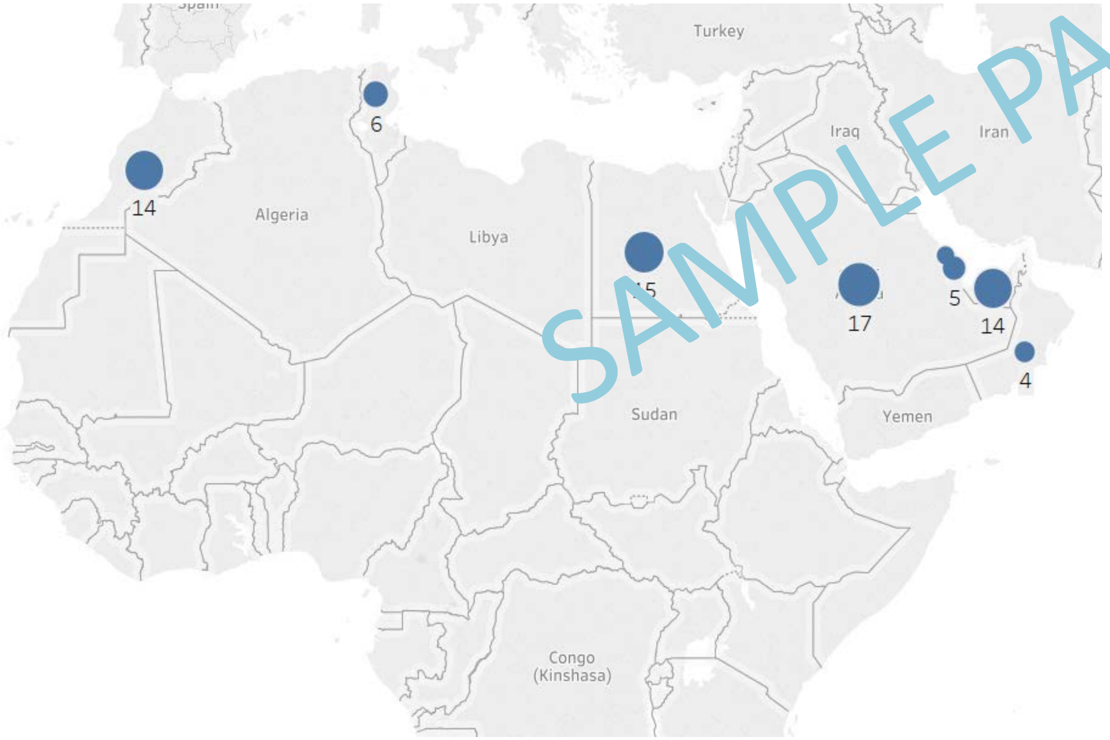


Picture: Meeza DC, MV-2, Doha

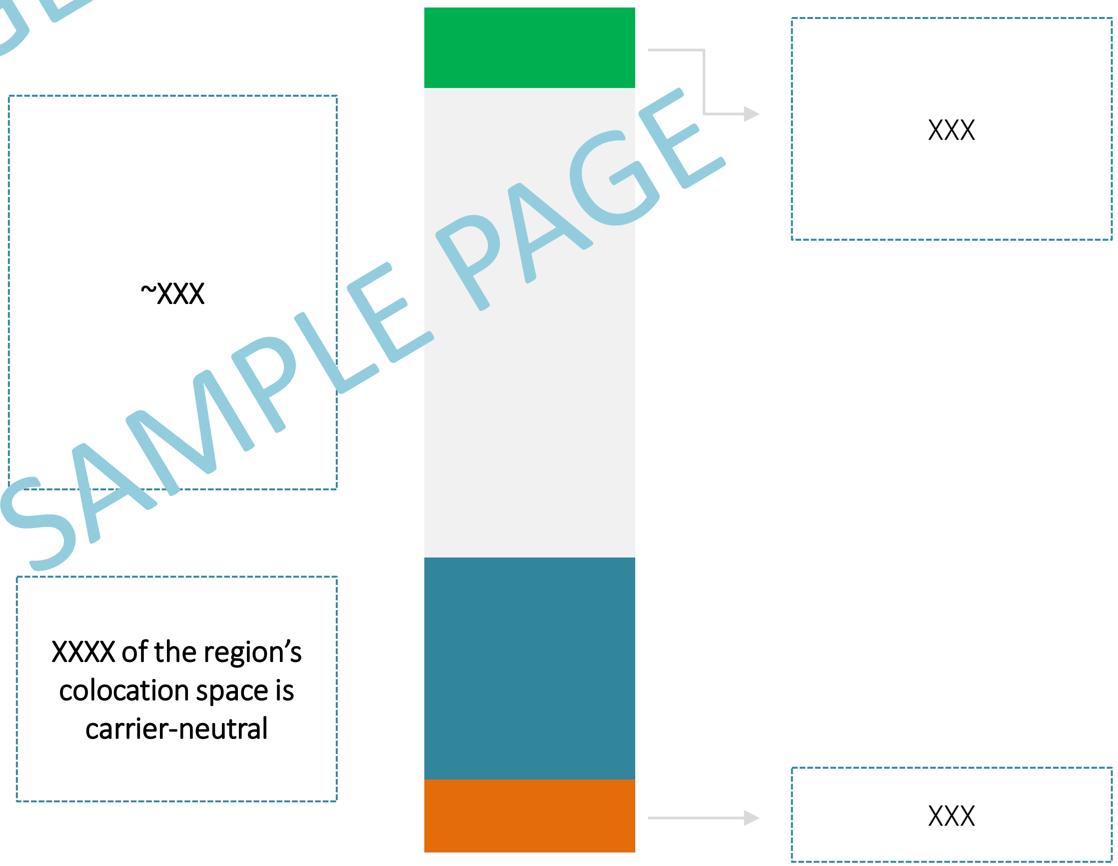
How many MTDC facilities in the Middle East & North Africa?

There are around XXX dedicated multi-tenant data center facilities in the Middle East and North Africa*. Most MENA colocation facilities are located in the Middle East, and have predominantly been controlled by XXXX.

Where they are: MENA MTDC facilities – 2018F*



Share of MENA MTDC colocation space by provider type - 2018



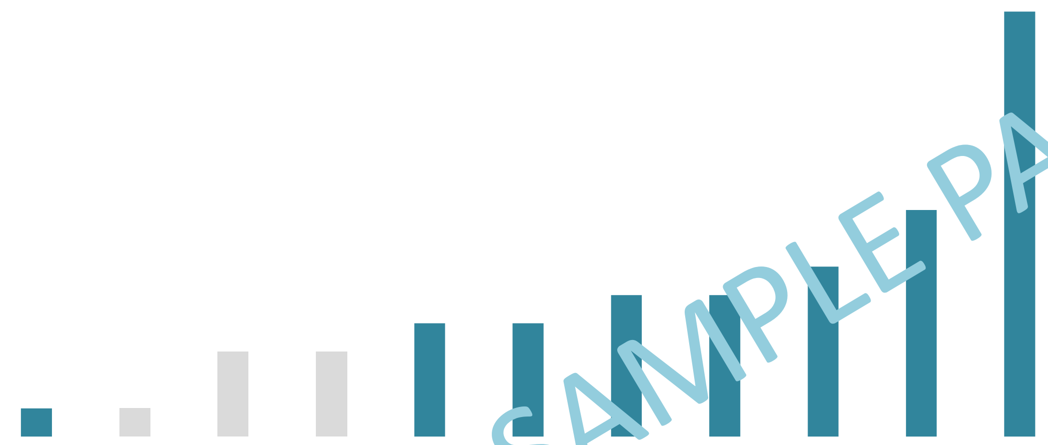
*Estimates based on our assessment of facilities predominantly dedicated to offering data center colocation space on a commercial basis; numbers claimed by service providers are ~20%-30% higher. Estimates are projections of operational facilities as of December 2018.

Sources: Provider data, Xalam Analytics estimates

Global Internet and content providers are bulking up their MENA presence

Xalam Analytics

Number of CDN & Public Cloud points of presence in MENA - by country - Q3 2018



Based on the world's Top 10 CDN providers and Top 5 public cloud providers.
Sources: Provider data, Xalam Analytics estimates.

- XXX
- XXXXX

Number of CDN & Public Cloud points of presence in MENA - by metro - Q3 2018

Based on the world's Top 10 CDN providers and Top 5 public cloud providers.
Sources: Provider data, Xalam Analytics estimates.

Tunisia: Cloud & Colo Fundamentals

Xalam Analytics

Broadband Penetration and Usage — Good

- **XXX**
- **XXXXXXX**
- **XXXXXXXX**

Connectivity Diversity — Moderate

- **XXX**
- **XXXXXXX**
- **XXXXXXXX**

Enterprise & Cloud Adoption — Low

- **Enterprise addressable base** –
- **~XXX commercial banks**, and ~XXX financial institutions
- DC outsourcing levels are still low –XXXX
- **XXXXX**

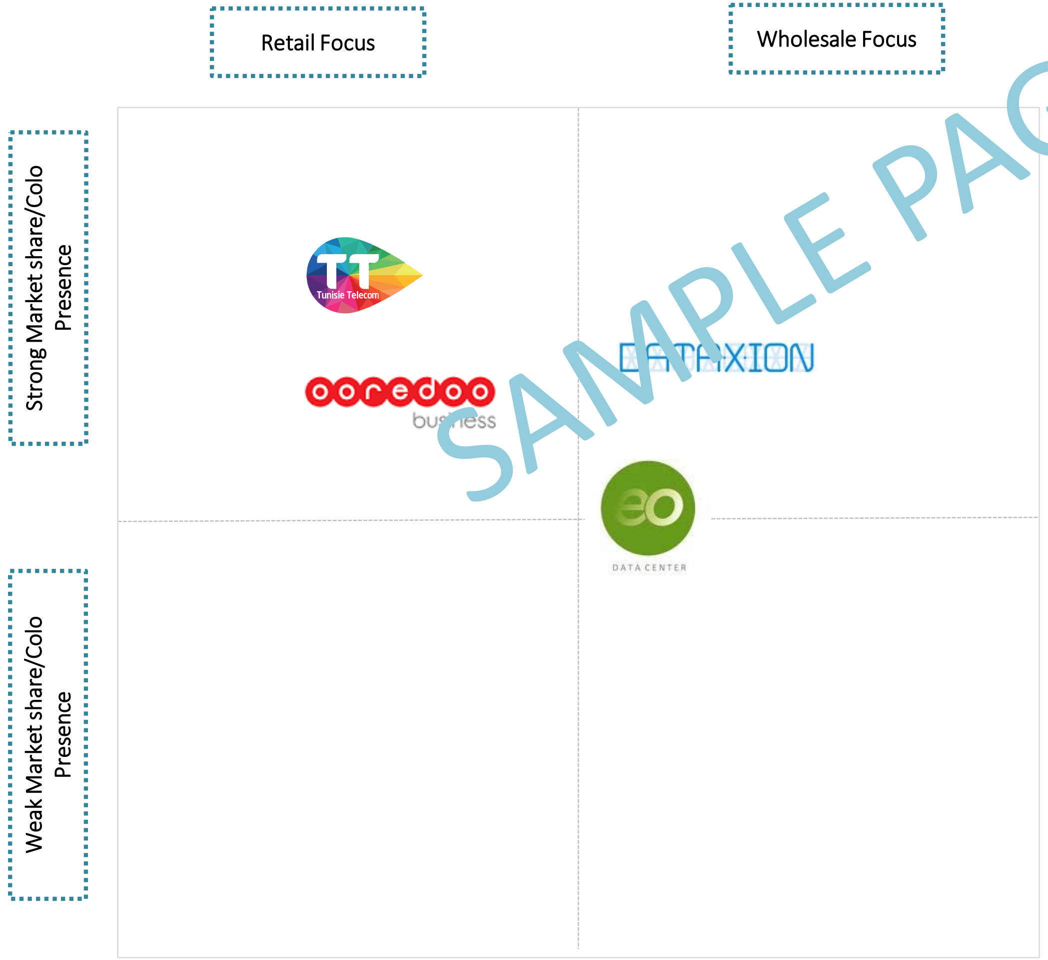
Hyperscale, Cloud & Digital Content Demand — Low

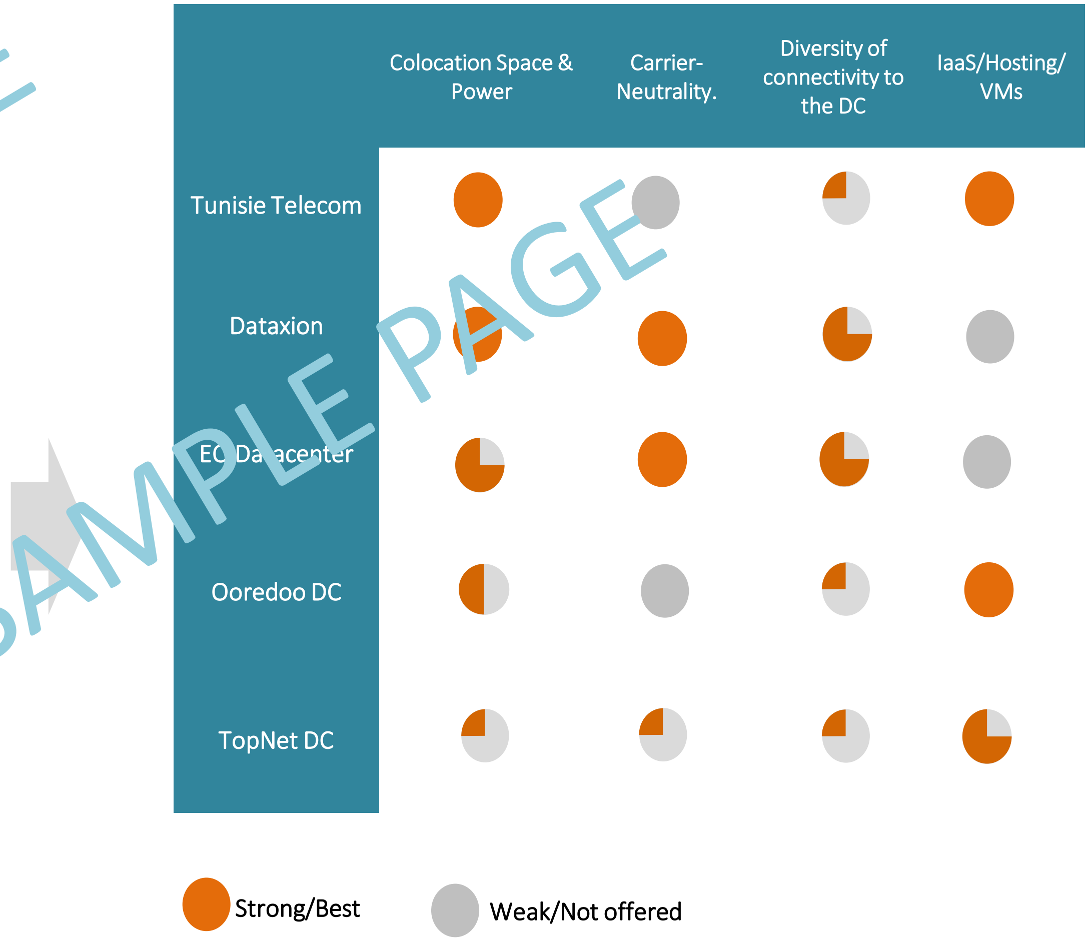
- **XXX**
- **XXXXX**

SAMPLE PAGE

Tunisia: Key colocation player summary

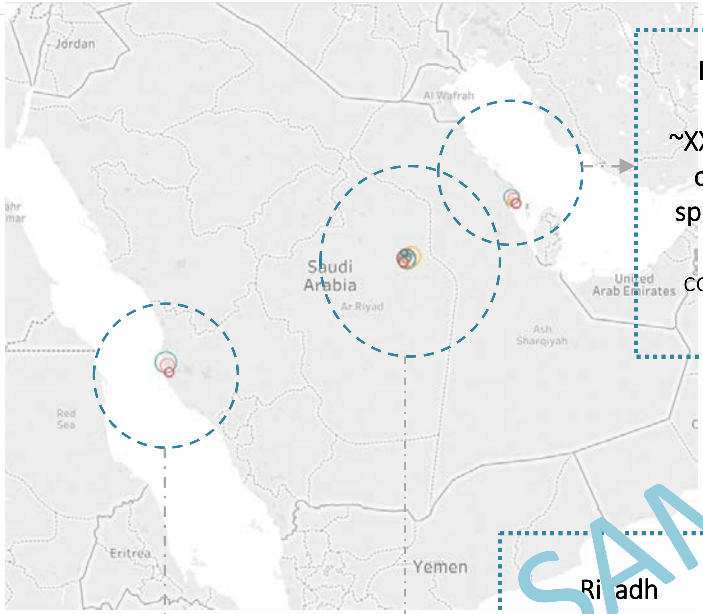
Tunisia colocation market position – as of Q2 2018*





Retail: the DC primarily targets corporate/SME enterprise customers with a broad range of ICT solutions
Wholesale: the DC is primarily focused on colocation, and primarily targets connectivity, Internet/ICT/content providers
*Rating/positioning by Xalam Analytics

KSA Colocation: the Riyadh-Jeddah-Dammam nexus



Dammam

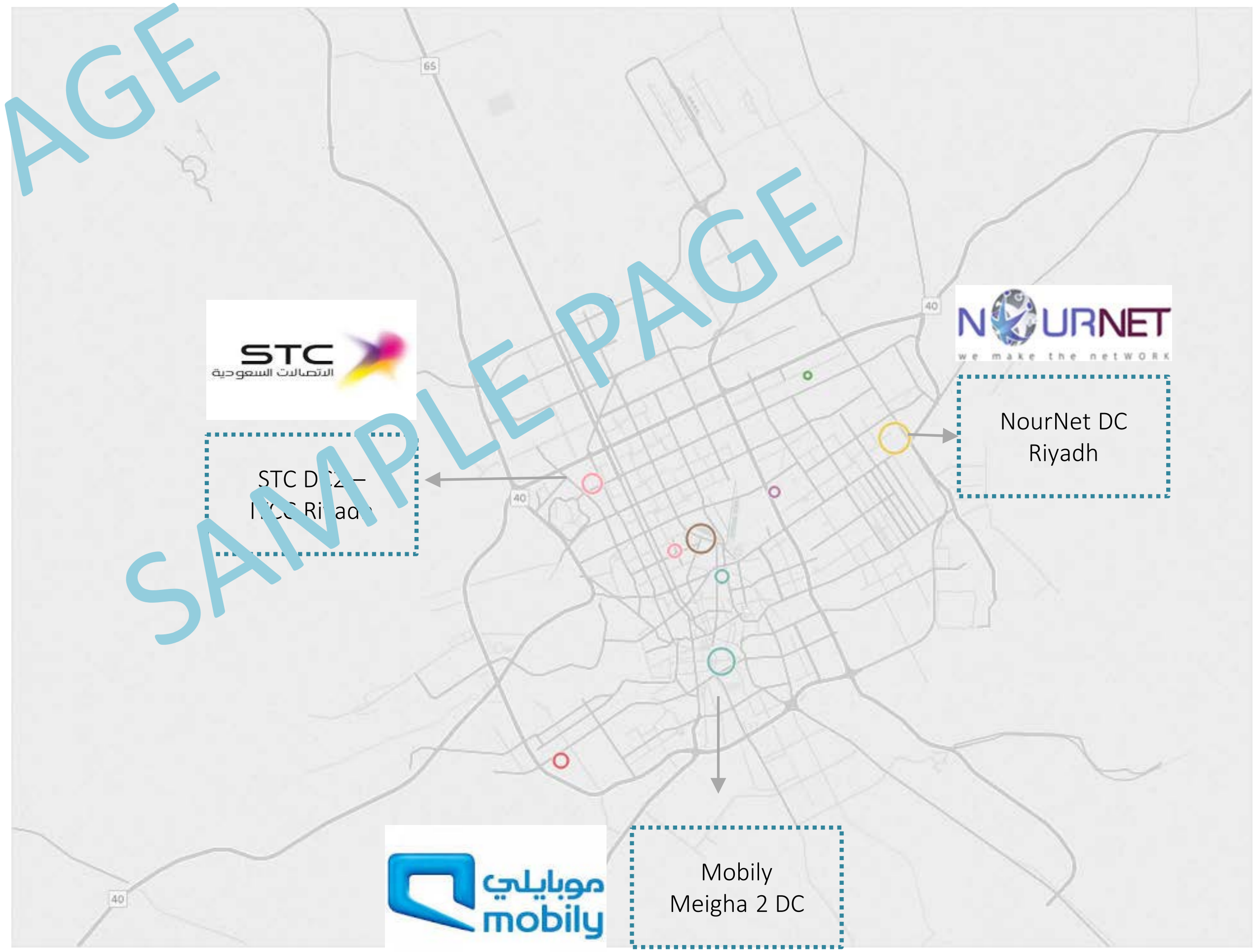
~XXXX of KSA's **colocation space**; oil and gas + connectivity market

Jeddah

~XXXX of KSA's **colocation space**, primarily for connectivity provider and interconnect market

Riyadh

~XXXX KSA's **colocation space**; enterprise and public sector markets



STC DC2 – ICC Riyadh

NourNet DC Riyadh

Mobily Meigha 2 DC

Report Specs – 2 Budget Options

Xalam Analytics

Standard

PDF + 1-5 Users Licence

US$ 1,500

Report Delivered in PDF Format

Including:
80 pages
50 Charts & Visuals

Premium

PDF + Excel Charts + Corporate Licence + 1 Month Access to Xalam MENA Colo Dashboards*

US$ 2,000

Package delivered in PDF, Excel, Winzip or Box, including:

Report in PDF –
80 pages
& 50 Charts & Visuals

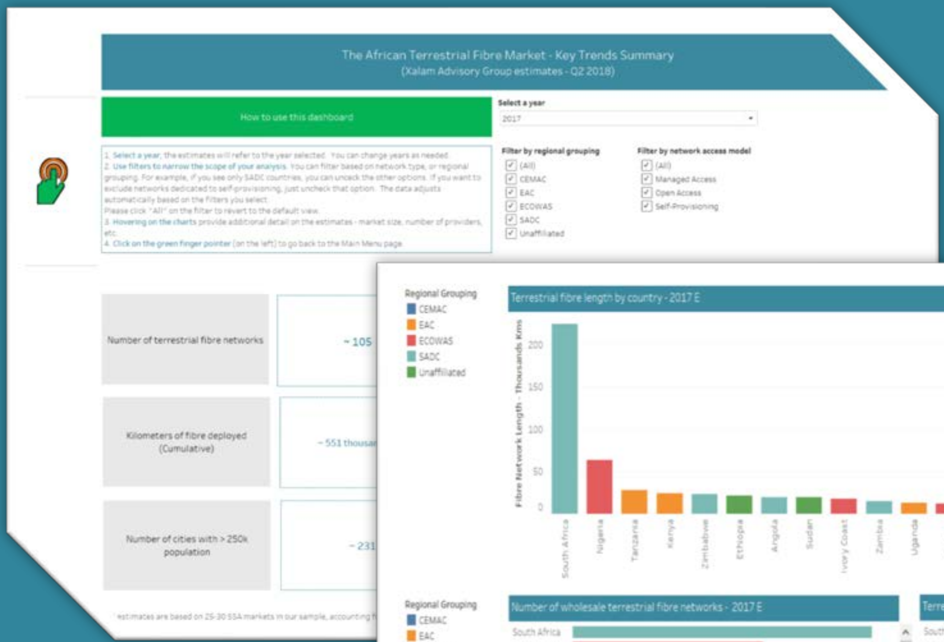
40 Charts with underlying chart data in Excel format

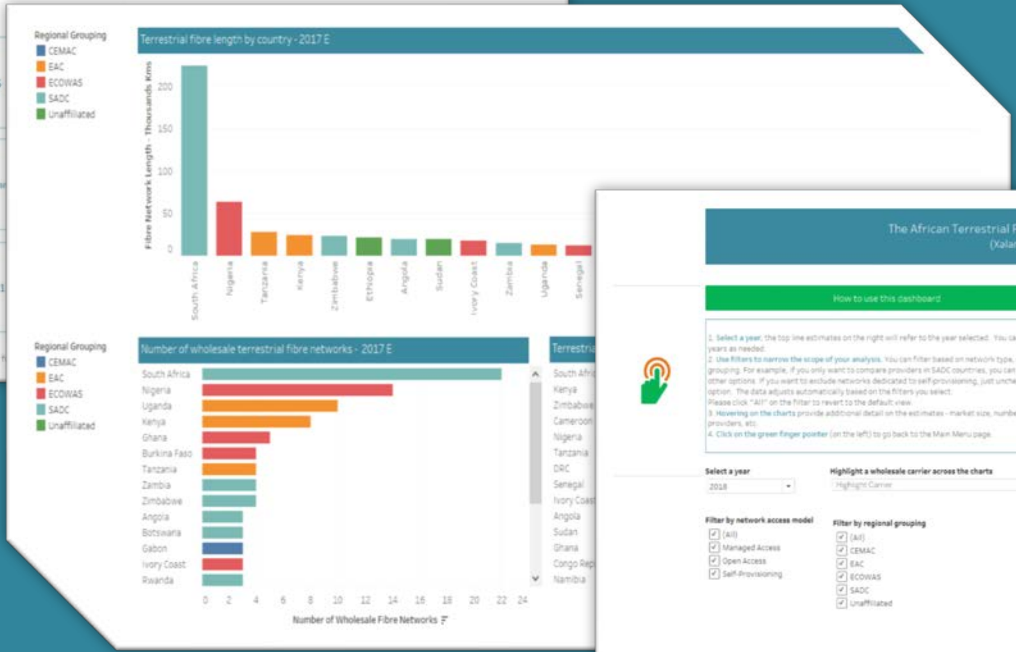
1-month access to Xalam MENA Colocation Dashboards (a $1250 value! – Xalam purchases only)*

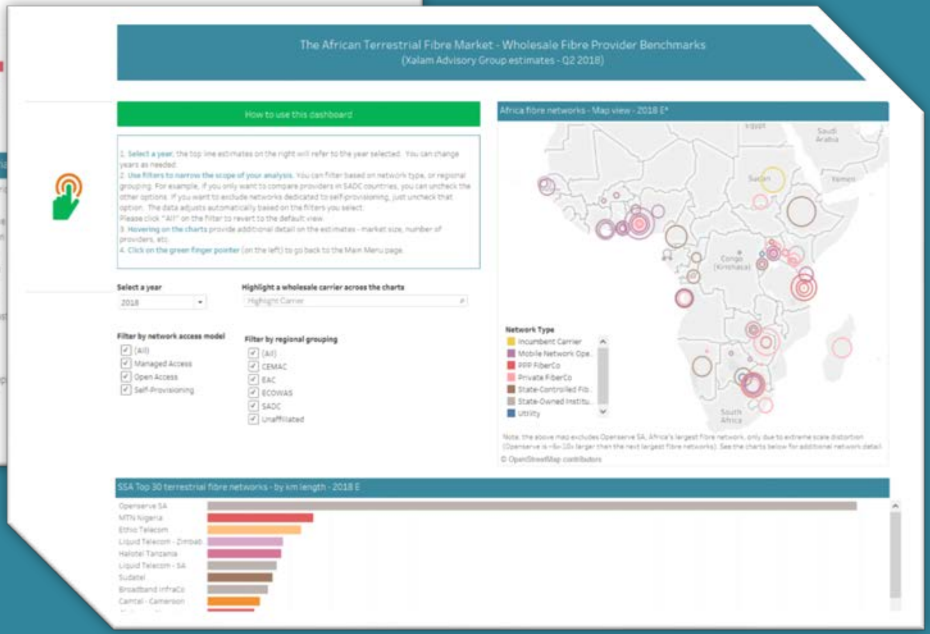
Including 1 month access to the Xalam Colo Dashboards!*

* 1 user licence, valid 30 days; applies to premium package reports purchased from the Xalam web store or directly invoiced by Xalam Analytics only; all rights reserved.

The analysis in this report is powered by the Xalam Africa terrestrial fibre dashboards







- **See terrestrial fibre data at country, metro level**
- **Get full detail on estimated wholesale demand** – total sites, 4G/5G sites, fibre sites, data center demand and more
- Filter the data interactively, use maps to visualize metros
- **Benchmark wholesale fibre market size and metro fibre pricing across 20+ markets**

- **A powerful, AWS-based, interactive visualization tool** - that transforms how you see and absorb African market data
- **Combining years of extensive research,** data collection, African fibre and colo market analysis and modelling with the latest analytics technology
- **Flexible access options – 30-day or one year – available as part of premium report package, or separately***

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