Op-Ed: Are Data Centers in East Africa Ready for Digital Demands?

By Carol Koech. Country President, Schneider Electric East Africa.

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NAIROBI, KENYA, KENYA, July 19, 2021 /EINPresswire.com/ -- Last year was different for many obvious reasons. But one habit which hasn't changed is our need and use of everything digital. The pandemic has accelerated our use of digital channels, both as individuals and as businesses. We're using more streaming services, increasing our time on social media, conversing over Zoom and Teams, and using online platforms to learn.

All of these activities are dependent on our data centers. These spaces, which are home to vast computing power and storage, are today's utilities. They're as essential as our roads and our hospitals. And we've got to ask ourselves if we have the necessary infrastructure to ensure that the data will continue flowing.

Data centers are being utilized more than ever. For example, the world's largest internet exchange facility, DE-CIX Frankfurt, saw on-average data traffic increases of 10 percent in early March last year as people started staying at home. Our switch to video conferencing, which has seen triple digit growth, is another example of changing habits and the need to understand how our data usage will affect our data centers.

Our demand for faster speeds and better connectivity isn't going to lessen. The good news is that data center spending is going up; Gartner is estimating that end-user spending on global data center infrastructure is projected to reach US$200 billion in 2021, up 6% from 2020. The landscape in East Africa is no different. In Kenya for example, the country has a total number of 43.7 million Internet/data subscriptions according to the Communication Authority of Kenya; this coupled with the country's youthful demographics means that data demand will rise rapidly,

which will require more data centers. And we can already see investments in this space.

We have a moment to plan out how best to design and build data centers to make them future-ready, more energy efficient and sustainable. Sustainability matters, given how much power data centers consume – up to three percent globally – and the energy cost savings an efficient data center can achieve.

So, how do we build a future-ready data center? There's four points we have to bear in mind to ensure that our data centers are able to cope with our data demands.

Let's begin with Time-to-market. Data centers can take years to build, and we don't have the time to spare. But there are steps we can take to reduce time-to-market. Firstly, look at efficient, modular, pod or row data centers solutions. One idea is to design your pod data center to your specific requirements, put your pod housing onsite and roll your IT rack and equipment configuration into it. You can add pod data centers quickly and incrementally at a lower cost when compared with a full-blown facility.

The second issue to tackle is that of people. We're facing a talent issue; there's a shortage of data center professionals, both regionally and globally. But there are steps you can take to minimize this. Data center owners can improve staffing efficiency by augmenting data center teams with more digital services and management software, which can monitor and optimize performance in real time. Digital services and cloud-based management software can speed diagnostics and lower costs whilst also providing the visibility and tools to drive operational and process efficiency. When combined together, management software and digital services drives efficiencies not just at the equipment level but at the people level by streamlining processes.

Now, let's talk capital spending. Data centers require significant investment, both to build and modernize. There are ways to reduce up-front costs. For example, smart data center owners are looking to modular, scalable uninterruptible power supplies (UPSs). A scalable UPS architecture enables data center operators to take a "pay-as-you-grow" approach, investing in additional power capacity only when needed and avoiding a scenario where costly up-front oversizing is required to address perceived long-term growth needs.

New technologies are also helping to reduce ownership costs. One exciting development is lithium-ion technology. Lithium-ion batteries have a 10-to-15-year real-life expectancy. They are small, light, and easily installed in multiple orientations. Lithium-ion batteries are indifferent to extreme temperatures and produce unlimited deep-cycle discharges; they thrive during power fluctuations, brownouts, and blackouts. Their usage is going to markedly reduce the total cost of ownership.

Finally, let's talk design process. Digital design tools that use common reference designs that account for materials, costs, and performance characteristics can reduce both the needed to and the costs associated with amending or changing a data center. These tools make use of tried and

tested designs, which will lower risk whilst allowing for optimizing how data centers operate. Reference designs standardize equipment across facilities, enabling staff to work seamlessly across locations. Companies like us are also happy to share thousands of reference designs with customers.

We're in a unique situation, where the pandemic has underlined our utter reliance on data. Data centers are as important to us as any other fundamental service. But, just like with any other utility, we have to plan ahead to ensure that we have the capacity to meet our needs now and into the future. Let's work smart and ensure that we have the regional data center capacity to both fuel our economic growth, as well as allow us to share our messages with loved ones.

About the Author

Carol Koech is the Chief Executive for Schneider Electric East Africa. She is tasked with driving the company's growth vision in the region across its Building, Datacenter, Industry and Access to Energy business portfolio. Carol has over 15 years of career experience leading operations in Sub-Saharan Africa spanning from finance to project development, engineering, and business development. She understands the digital transformation challenge in the region and looks forward to driving innovation and growth in this digital era. For more information, go to https://www.se.com/en/ .

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