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Utility management in East Africa - leapfrogging into the future

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Urban areas in East Africa are struggling to meet the high demands for electricity, water and sanitation, and poor, inefficient utility delivery continues to plague countries such as Kenya, Uganda and Tanzania. Year-on-year urban population growth is adding pressure to an already over-loaded grid. Electricity and water supply is intermittent and often not regulated enough or not properly monitored, and complexities such as disparate systems and multiple service providers contribute to the growing problem.



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Apart from increasing demand, many of these countries also struggle with aging infrastructure, which can make utility provision unsafe, as well as unreliable. Electricity supply is often interrupted due to people cutting down the wooden pylons to use to build their homes, often leaving the site dangerous and in a state of ill repair until the utility provider is able to find time to fix it – and that's when they are able to identify where the issue is.

Primed for technology

There is a strong push from governments to uplift these countries with innovative solutions for utility and infrastructure provision, which may well see them leapfrogging to sustainable energy solutions quicker than the rest of the world. However, before a country is able to get their infrastructure, services and utilities to the point it needs to be, they need to get their back-office systems such as billing structures and customer management in line, first.

Enterprise resource planning (ERP) solutions are gaining popularity in East Africa to help solve these billing concerns, and to try streamline processes and better manage various stakeholders. Current systems in place for many of

these regions are outdated and fragmented, with many of them still operating manually. In order to run utilities more efficiently, proven enterprise asset management (EAM), metering and billing solutions need to be deployed.

Next level EAM

This goes a step further, however. EAM systems can also help utility providers to fix and maintain their infrastructure through enterprise asset management. Utility providers know that they need to address existing problems before they can begin upgrading or building out from their infrastructure. This is a lengthy and less rewarding process, especially as something inevitably breaks as soon as another thing is fixed.

These utility providers are perfectly primed to leverage EAM systems with built in toolsets, like field force enablement and edge devices like sensors, to quickly and proactively resolve issues on broken electricity cables and water lines. This enables them to better schedule regular and predictive maintenance teams who, with the aid of geo-fencing and tracking, don't waste time going to the wrong area or driving across country when a closer team can attend a fault.

Smart devices

Accurately measuring water and electricity usage is challenging in some African countries. Many dwellers don't have running water or electricity, and either leverage off of their neighbour's supply or, as with water, take from a communal

tank. Those with proper water and power often share theirs. Proper meter readings are not possible, therefore introducing smart metering – which have helped many countries with billing problems – will only be possible once the problem of accurate distribution is resolved.

The other side of the coin is that these countries have the ability to skip a few steps. Integrating enterprise level billing and customer relationship management (CRM) solutions with mobile devices to enable the 'smart citizen' not only garners the help of the population to identify problem areas faster, but also enables a level of self-service to better manage billing and payments. Renewable power can be incorporated into traditional power supply, feeding back into the grid while ensuring users don't have to cut corners to receive power.

The opportunities to incorporate these technologies into systems as early as possible will not only begin to rectify the existing issues but will also take these countries' utility provision into the future, surpassing countries who have had to go the traditional route, and possibly even paving the way for a greener, cleaner Africa.

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