Nandi County Deploys Scalable IT for County-wide Operations
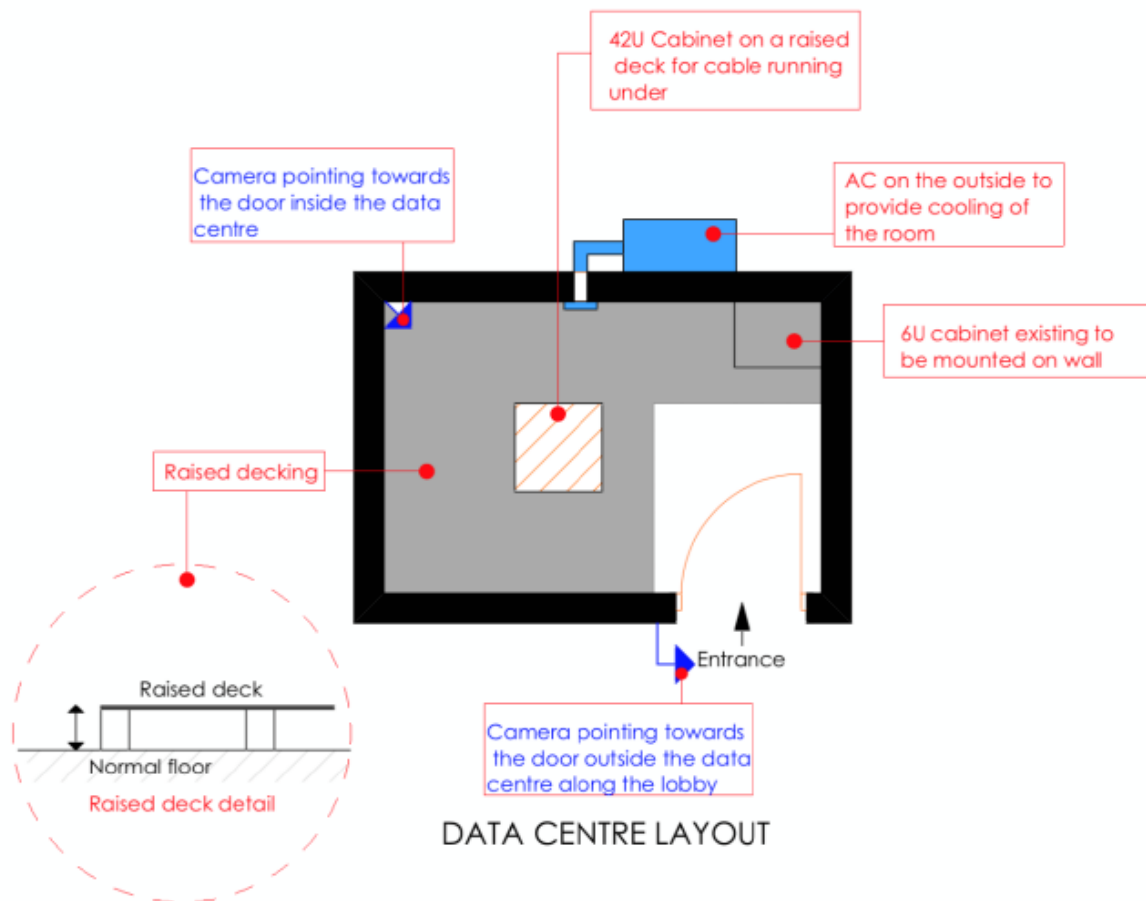
About Nandi County

Located in the Great Rift Valley region, Nandi County administration for **ICT Infrastructure and Systems Directorate** was tasked with Technology and Planning; to upgrade the network technology and overall information systems for the County Government.
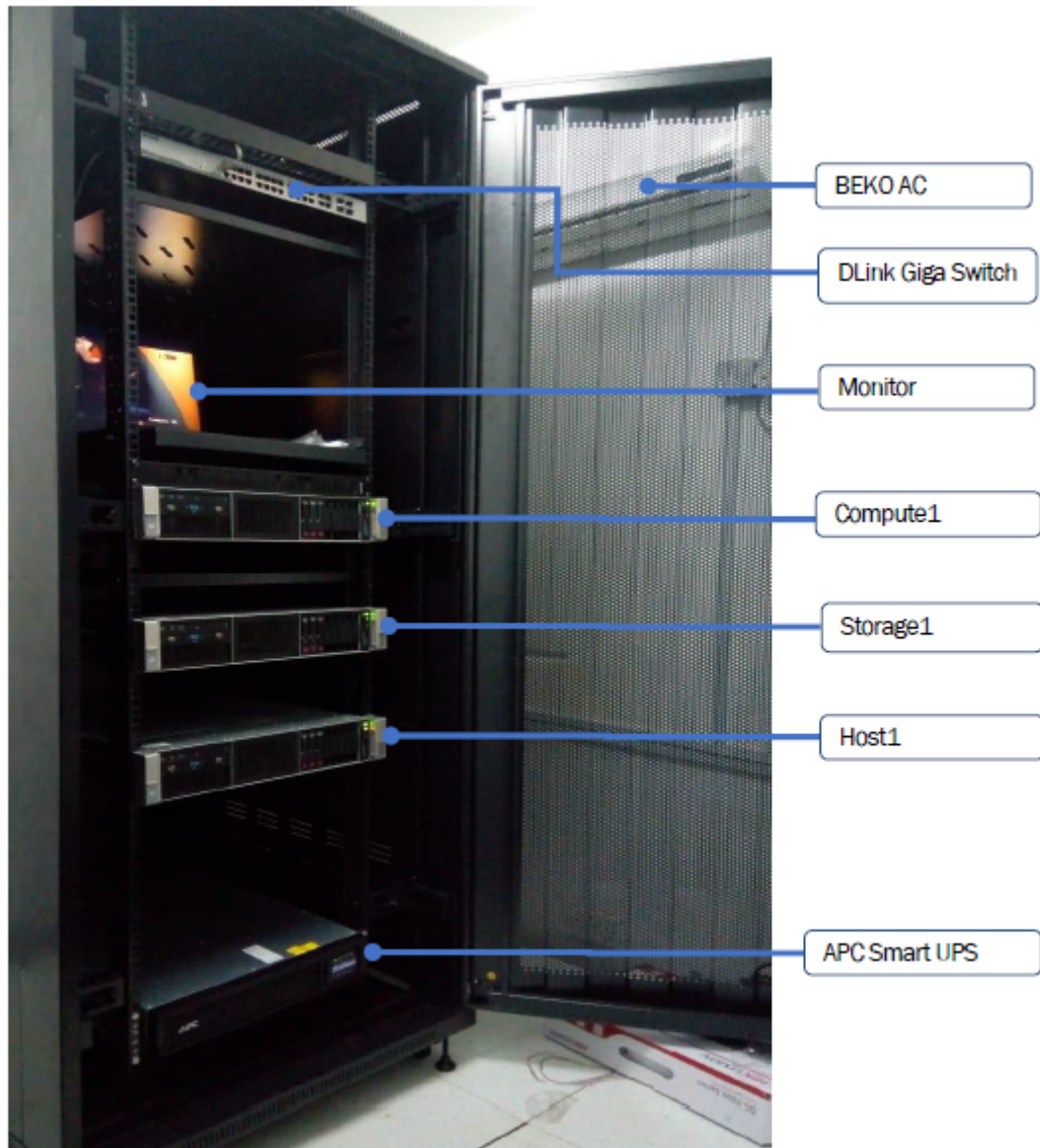
The Challenge and Setup

The team led by Mr. Jonathan Miso opted for a new network setup built around a data centre model. Its purpose? built to house enterprise computing equipment running services for organizations such as Kapsabet Referral Hospital, a Support Call Center, Offices among other proposed case-site applications

This was a first for the County administration and it was imperative to envision support for a future upgrade on to Tier II and III of the data center.

42U Cabinet on a raised deck for cable running under

Camera pointing towards the door inside the data centre

AC on the outside to provide cooling of the room

6U cabinet existing to be mounted on wall

Raised decking

Raised deck

Normal floor

Raised deck detail

Entrance

Camera pointing towards the door outside the data centre along the lobby

DATA CENTRE LAYOUT

Nevertheless, the proposed Tier I setup had to support powerful computing and communications affordably in relation to setup and maintenance. In addition, the network upgrade also supported a dedicated 100mbps uplink capability and GSM Trunking on setup.

The Solution

The computing environment was achieved using cloud stack for VMs, network and storage provisioning automation. This 'provisioning' solution was key to the network design. As with many institutions, with a lean IT staff managing the network for the entire campus; Nandi County administration required an enviroment that was easy to configure, manage, and troubleshoot, even remotely.

The robust administration and visibility provided by the vitualization dashboard, made the network design agile and scalable. Unlike other deployments, this low-touch configuration means that the team has on-demand elastic cloud computing service capabilities, for the storage and network, all under one dashboard. This cuts down the time the team may spend in provisioning end user resources on the new network. The cloud dashboard also gets rid of error-prone manual configuration and makes sure the network is secure.

The Value

The implementation of this network design unlocked features and benefits, including how it lets you:

- Monitor performance via a common platform for ICT teams, including County officials

- Increase resource capabilities for scale as needed; without retooling.

- Break silos and create a common language between IT and County service operations

Unified monitoring results into faster communication, data-driven decision making while enabling performance bottlenecks to be resolved based on key metrics and reduces the mean time to business awareness.

The delivery of a core set of capabilities that could scale as needed, rather than having different infrastructures and different application capabilities for every use-case; means that the ICT team is going to be free from both building and retooling, for the purpose of enabling agility into their IT resources.

When IT and the business have a common language, County officials and their IT counterparts are able to collaborate together on a single source of truth. For example, operations don't care that a particular server is up, they care that a task was completed successfully.

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