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# NREN Software Defined Data-Center Network (SDN), a critical foundation for advanced research and future services in Africa.

TITTLE:

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ABSTRACT:

The advent of social media, mobile and cloud computing with rich content delivery across IT infrastructure has been putting enormous strain on traditional networks. These rich content and services are also pushing traditional data-centers to its limits. Over the years, there has been incredible innovation in virtualization and automation with the data-center compute and storage as major benefactors. The compute and storage virtualized and automated benefits have been constrained by the limitations in the connectivity between core IT infrastructure components –Networks.

This paper introduces the potentials of an NREN Software Defined Data-Center (SDDC) as an essential tool for innovation and research collaboration not only between NREN communities but also with other industries. The paper will also examine SDN as a revolutionary tool for legacy data centers by providing faster, agile and flexible way to control the network in a virtualized world.

This paper aim to address the following:

⬚ Software Defined Networks (SDN) in an NREN core and data-center network environment
⬚ SDN API's and their critical role in driving research collaboration between higher education and research institutions and the other industries.
⬚ Potential and future services that can be delivered across NREN community SDN networks and data-centers.
⬚ The paper will also explore the commercial opportunities and new revenue streams from SDN available to African NRENS
⬚ Finally, the paper will present some research use case for Software Defined Data-Center (SDDC) deployment within an NREN infrastructure environment

POTENTIAL ATTENDEE:

This paper is intended for African National Research and Education Community, Universities, Research Organizations and Government representatives.

BIOGRAPHY:

Babatunde Omogbai is a Senior Lead Infrastructure Architect in the Advanced Technology Planning Group at SITA. His work focuses on network virtualization and cloud technologies and has more than 14 years' experience designing large scale service provider networks. Babatunde has been a volunteer member of the WACREN technical team and has presented technical papers on advanced network technologies at various conferences and meetings.

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