



AWS and Higher Education

UbuntuNet Alliance

23 Feb 2022

Linda Siso: Head of Education South Africa (AWS)

Robin Njiru: ESSA/RSSA Lead

Jabu Sibanyoni: Snr Solution Architect Education (AWS)

Fuad Zaru: Pursuit BD Manager (AWS)



Proposed Agenda

- What is Cloud Computing?
- Overview of AWS
- AWS Infrastructure and AWS Services
- Education Use-cases
- NRENs Role in Cloud Services for Research and Education – AWS's Experience
- How to Buy Cloud

What is cloud computing?



The on-demand delivery of IT resources over public or private networks with zero up-front costs, no long-term contracts, and pay-as-you-go pricing

What is AWS?

AWS provides a highly reliable, scalable, low-cost infrastructure platform in the cloud that powers more than a million active customers in 190 countries around the world.



Trade CapEx for OpEx



Economies of Scale



Stop Guessing Capacity



Increase Speed & Agility



Focus on Your Students



Go Global in Minutes

AWS in Africa

2004

AWS first established its presence in South Africa with a development center in Cape Town. We built many pioneering networking technologies, our next-generation software for customer support, and the technology behind our compute service, Amazon Elastic Compute Cloud (Amazon EC2), in this region.

2015

We expanded our presence in the country, opening an AWS office in Johannesburg.

2017

The Amazon global network expanded to Africa through AWS Direct Connect.



2018

We launched infrastructure on the African continent by introducing Amazon CloudFront to South Africa, with two new edge locations in Johannesburg and Cape Town.

2019

Launch of the Edge location in Nairobi, Kenya

2020

AWS achieved Level 1 Broad-Based Black Economic Empowerment (B-BBEE) Contributor Status.

We opened the AWS Africa (Cape Town) Region as a continuation of our investment to support the growth of South Africa and the Sub-Saharan Africa region.

AWS Outposts can be installed at customer datacenters and on-premises locations in South Africa.



[Learn more](#) about the new AWS Africa (Cape Town) Region



What sets AWS apart?



Experience

Building and managing cloud since 2006



Service Breadth & Depth

200+ services to support any cloud workload



Pace of Innovation

4,653+ customer-driven service/feature releases since 2006



Global Footprint

26 regions, 84 availability zones, 205 edge locations



Pricing Philosophy

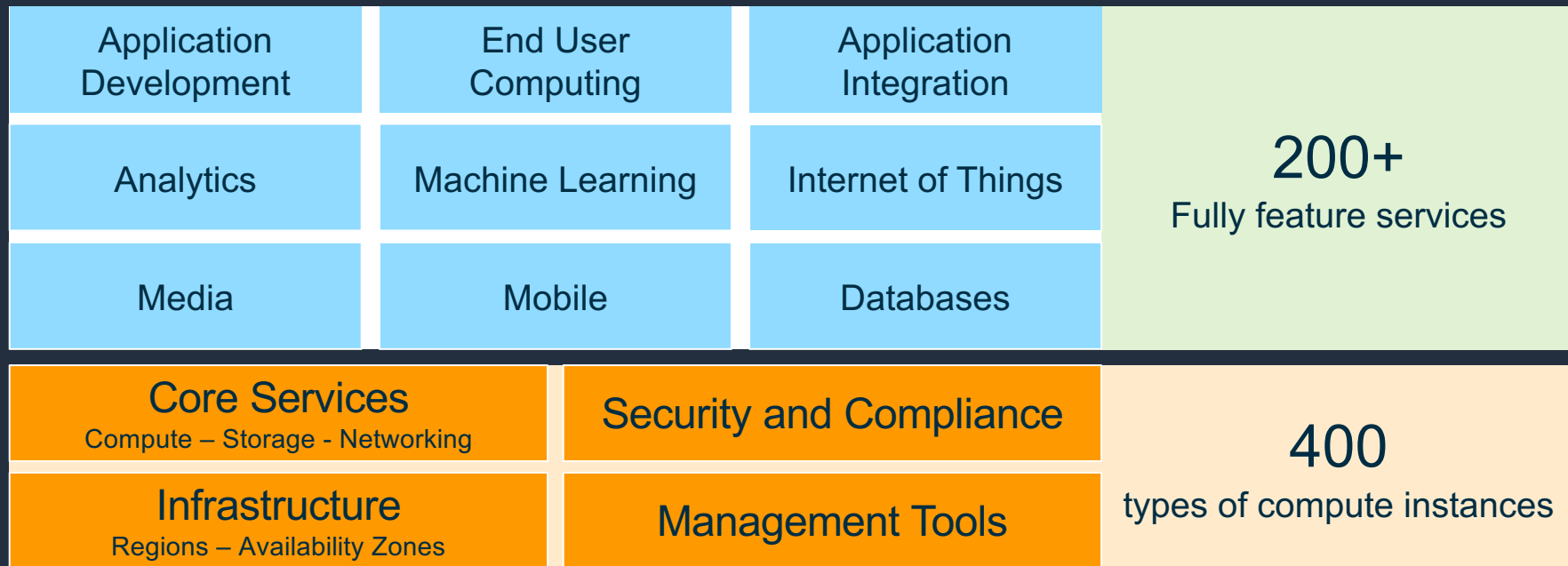
107 proactive price reductions to date since 2006



Ecosystem

Thousands of partners; 4,800+ Marketplace products

Support virtually any cloud workload



AWS Solutions for Education

Teaching & Learning

Learning Management System i.e. Moodle, Sakai, Opencast, Open-Edx, Canvas etc.

Student Information Systems

i.e. Connect for clearing, PeopleSoft Campus, SAP Campus, SITS Vision, Ellucian banner

Contact Centre for Education

Easy-to-use omnichannel cloud contact center service



Research

High Performance Computing (HPC)

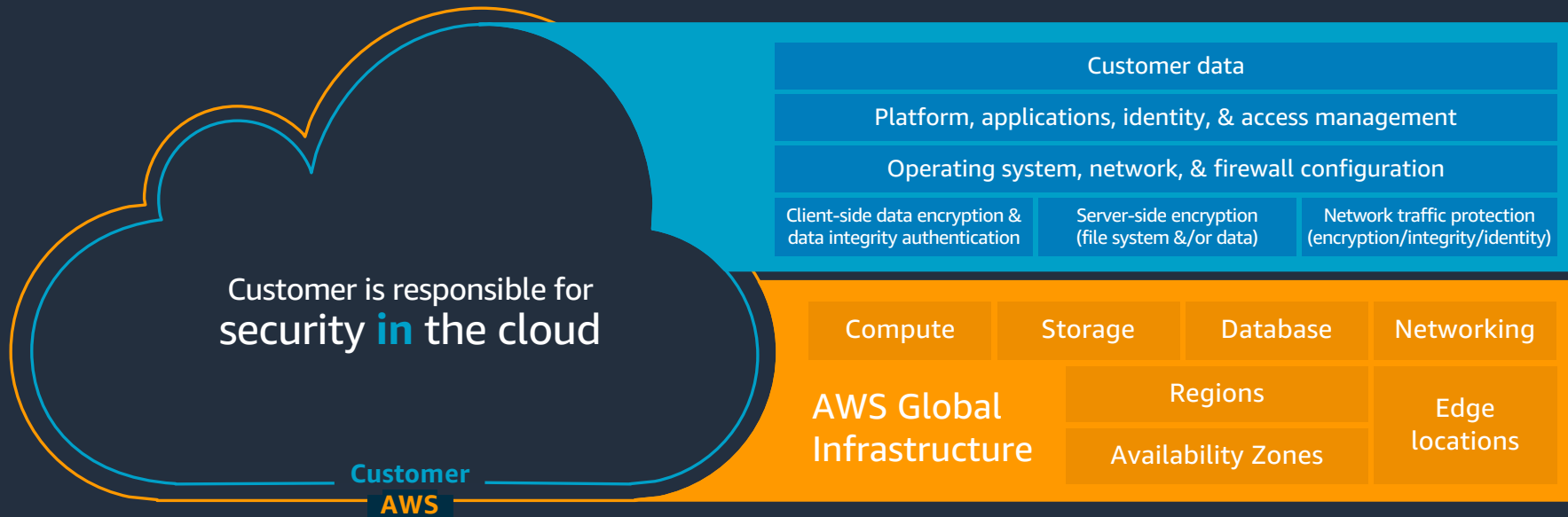
Assessment

Virtual Proctoring Solution

Virtual learning Environments (VLE)

Virtual Desktop & Applications
Streaming

Security as a shared responsibility



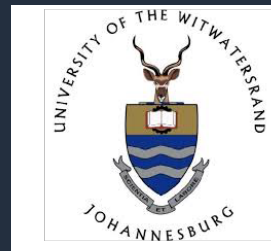
AWS is responsible for security **of** the cloud

Case Studies

Education is Built on AWS



University of the Witwatersrand



Wits provides accessible remote learning with AWS

"AWS came at the right time for Wits University in that a perennial problem of the Learning Management System going down during critical times became a thing of the past"




[Video Case Study on Youtube](#)

University of Pretoria

Innovating and Providing World Class Education on AWS



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

A wide-angle photograph of the University of Pretoria's main building, a large, historic stone structure with a central clock tower. The building is surrounded by a large, green lawn where many students are sitting and walking. Trees are visible on the left and right sides of the building. In the foreground, two students with backpacks are walking towards the right.

“Its never been
easier to teach
& learn”

[Video Case Study on Youtube](#)

NRENs Role in Cloud Services for Research and Education – AWS's Experience

NRENs role : Cloud services for research and education

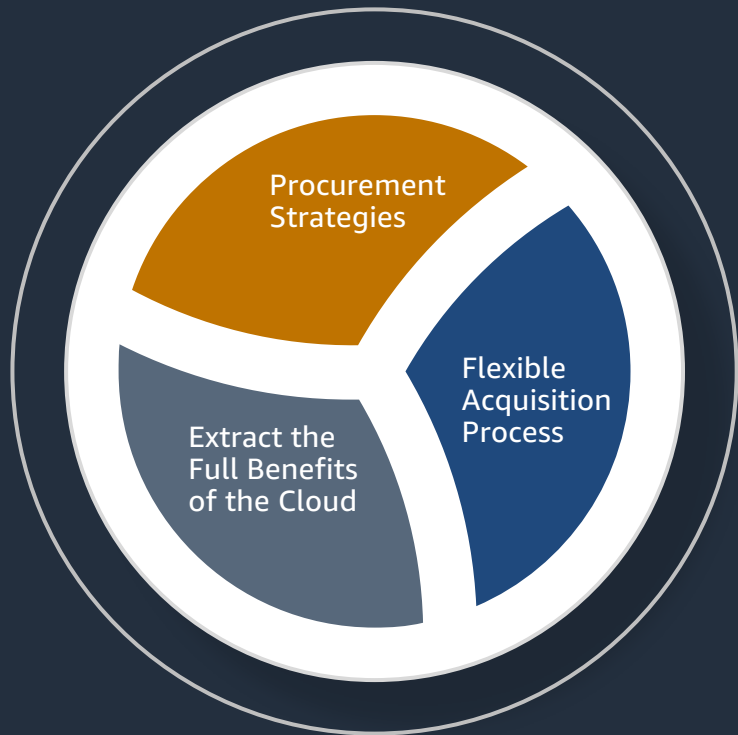
- Operating cloud frameworks agreements
- Partner and reseller of AWS services
- Cloud Professional Services and Consultancy
 - Cloud strategies and roadmaps
 - Cloud TCO, architecture reviews
 - Security
 - Best practice sharing
 - Creation of a service catalogue
- CCOE: Certified cloud consultants, solutions architects, security specialists & engineers
- Pricing, billing management, cost optimization & management, promotional credit mgt
- Security & compliance – verification of cloud services.
- Community support : training, certification and events

Some key considerations

- Strategic direction
- Appetite to risk
- Funding model
- Financial situation and TCO analysis
- NREs 'customers' needs, requirements and expectations
- Resources availability:
 - Skills required for cloud adoption
 - own resources vs outsourced managed service

Cloud Procurement and Procurement Vehicles

Let's rethink procurement



Cloud customers may be tempted to recycle legacy IT procurement requirements and evaluation criteria to procure cloud, but, **buying cloud is different** and therefore needs a new approach to procurement.

Cloud is **dynamic**. New features and services are continually added and prices reduced as economies of scale are passed along to customers. Flexible acquisition processes allow customers to get the latest innovations at the best prices.

Successful cloud procurement strategies ensure all parts of an organization benefits from the cloud, allowing them to quickly and easily test and innovate, benefit from the highest levels of security, have better visibility and control of their environment, etc.

Five key areas of procurement

1. Pricing
2. Security
3. Governance and 'Operationalization'
4. Terms and Conditions
5. Working with partners

Other Resources

- **CISPE Handbook** - This handbook provides sample RFP language and practical advice and guidance on how to great a cloud RFP.

<https://cispe.cloud/buying-cloud-services-in-public-sector-handbook/>

- **Getting Started with Cloud Acquisitions** – This is a free 80 minute self paced virtual training created to help public sector customers dive deeper into cloud acquisition.

<https://aws.amazon.com/blogs/training-and-certification/new-free-course-builds-knowledge-of-aws-cloud-acquisition-for-non-it-professionals-executives/>

- **How to Buy Cloud – Strategies for Cloud Procurement** – This 3 week virtual training on Coursera, edX and Udemy was designed to help public sector customers develop a deep understanding of cloud acquisition best practices.

<https://aws.amazon.com/blogs/training-and-certification/four-new-free-learning-opportunities-now-available-on-coursera-edx-and-udemy/>

- **AWS Customer Agreement** - contains the terms and conditions that govern your access to and use of the Service Offerings and is an agreement between the applicable AWS Contracting Party.

<https://aws.amazon.com/agreement/>



Questions?

