

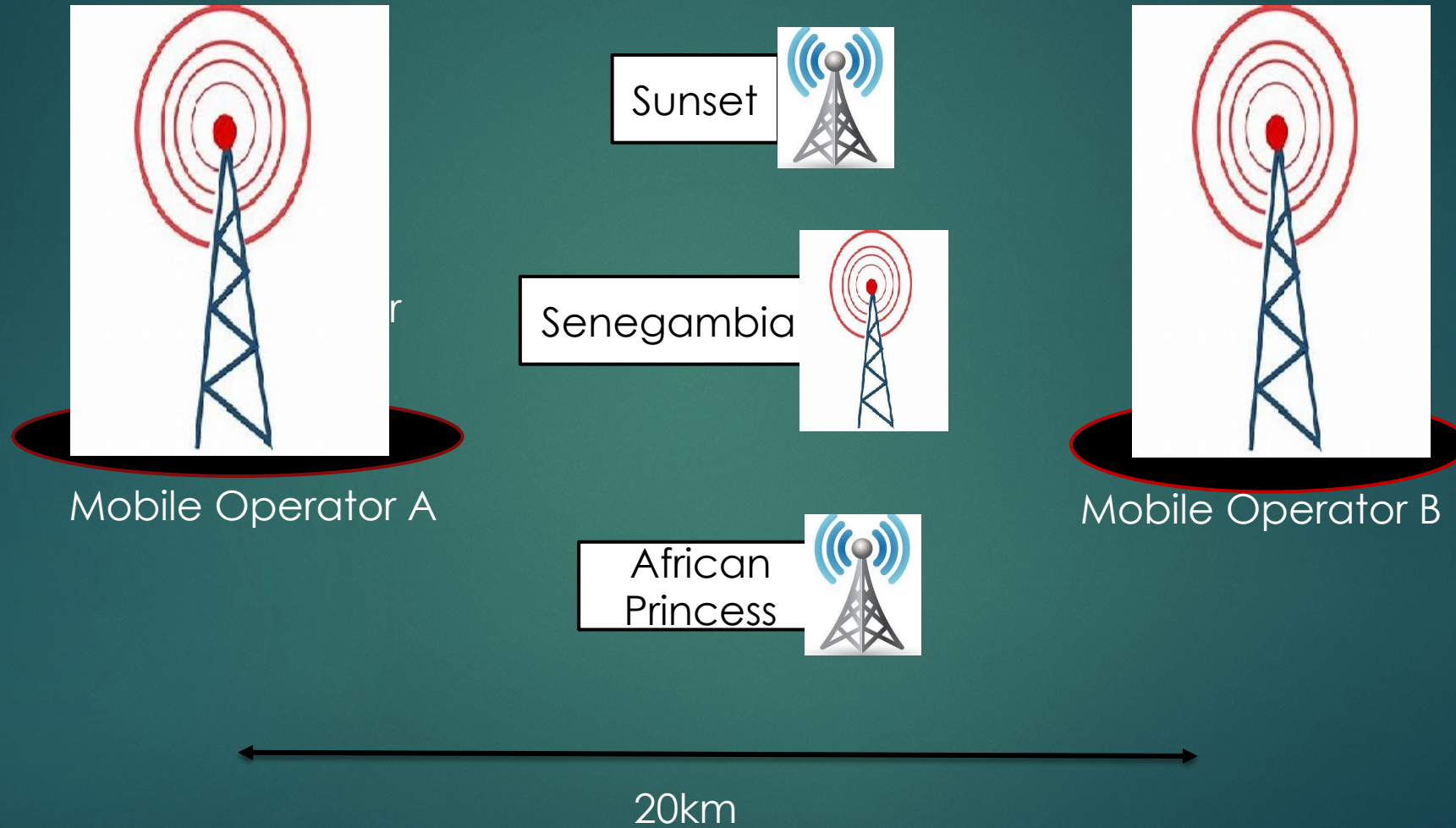
Broadband Connectivity Case Study



Participants

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Infrastructure Design



Assumptions

- ▶ 1. The topology of the Republic of Camel is flat terrain.
- ▶ 2. We assume that the distance between the two towers is 20km
- ▶ 3. We assume that the three (3) rural areas are aligned along a vertical axis where there is no coverage.
- ▶ 4. We assume that Senegambia is located between the other two (2) rural areas.

Question 1

- ▶ Deployment of 2G/3G and 4G towers.
- ▶ using Omni-directional antennas for Senegambia, due to the high population.
- ▶ Use Directional Antennas for the other two sites, based on the population coverage.
- ▶ The sites will be deployed using multi - Technology.
- ▶ Using 800 MHz and 1800 MHz for LTE, whilst 900 MHz for UMTS and GSM.
- ▶ Healthcare centre receives 60mbps dedicated services for e-healthcare
- ▶ Schools receives 25mbps, for e-learning, computer labs and online meetings.

Question 2

- ▶ Free tax for rural deployment with regulations set to control the use infrastructure.
- ▶ Subsidize on CAPEX. The government will be responsible for the building of towers. Operational costs will be shared by the mobile operators.
- ▶ Government to subsidize the cost of smart devices/handsets to users in rural areas.
- ▶ Exemption from infrastructure annual charges levied by Municipalities/Districts.
- ▶ Mobile operators will collocate on the towers. They will share power supply costs (e.g. solar and generators).

Question 3

► Technical Resources

- ✓ Give more resources such as high capacity to Senegambia due to the high population.
- ✓ EMF assurance for the users, for population assurance.

► Regulatory Resources

- ✓ Introduce national roaming to increase mobile telephony penetration.
- ✓ QOS drive testing. Quality of service drive testing by the regulator to ensure SLAs are maintained.

