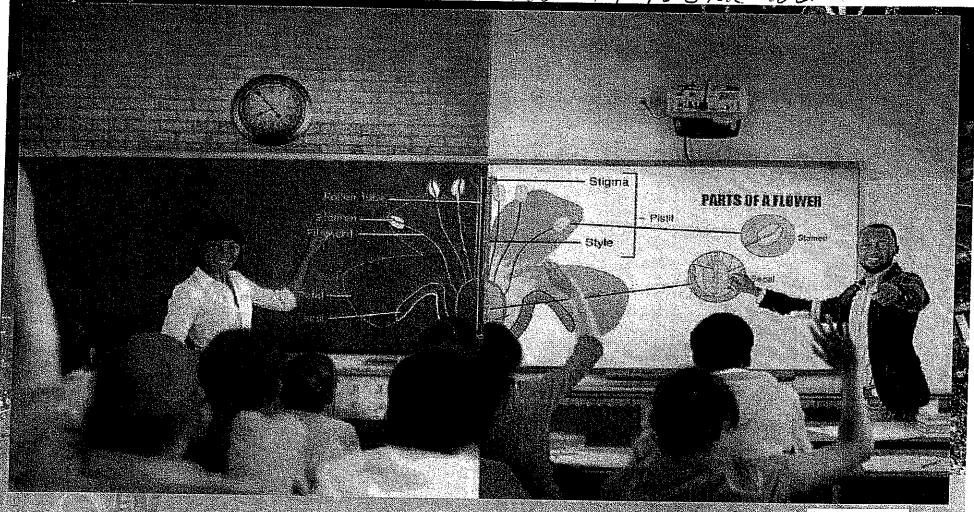
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Broadband & Schools Connectivity PPC - Telecommunication and Postal services



everywhere you go



MTN Broadband





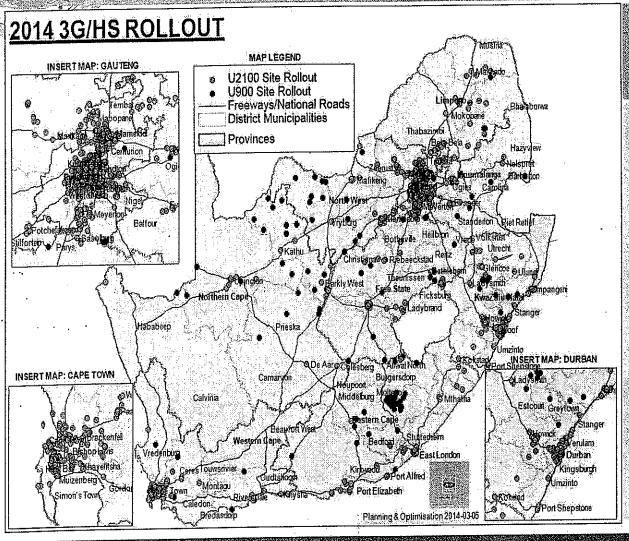
#### Network population coverage

- MTN is continuously rolling out broadband coverage across South Africa.
- MTN's population coverage statistics as at June 2014 for 3G is 85.12%.
- $\sim$ 63% increase in 3G population coverage since 2007.
- During 2014 MTN will roll out an additional 900 new 3G sites plus an additional 1600 upgrades.

Population Coverage	2007	2008	2009	2010	2011	2012	2013	2014-06
EDGE	58%	73%	82.50%	90.60%	92.20%	92.70%	96.72%	97.48%
3G (Broadband)	~22%	35,20%	48.00%	49.30%	54.70%	65%		85.12%
LTE (Broadband)							3.16%	10.23%



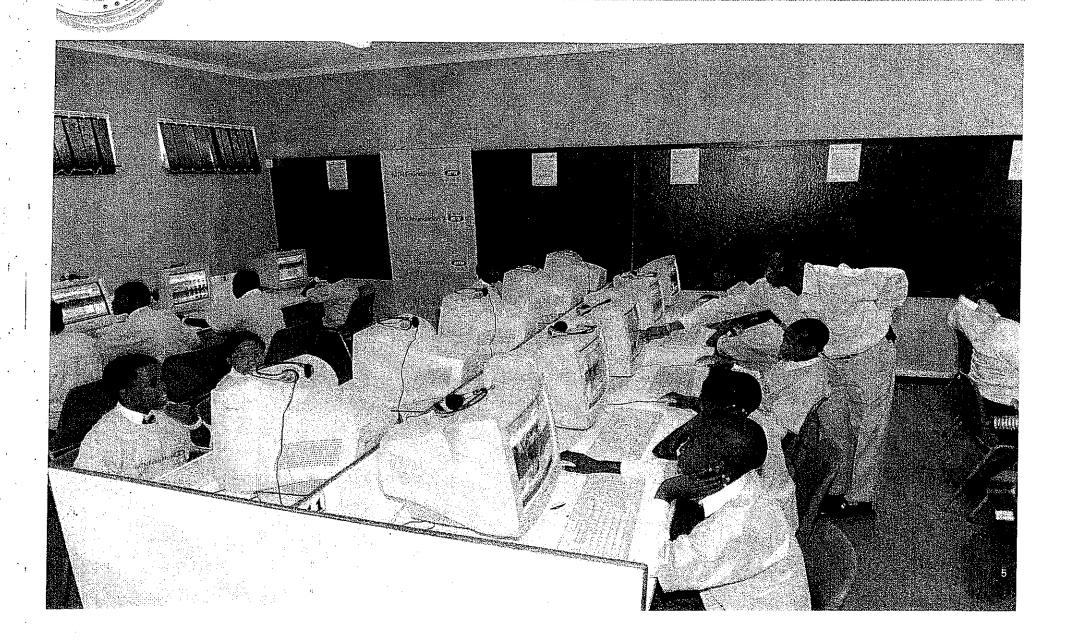




Tedi	intellete			j.
2G		1	± 450	
EDGE			± 150	
100 - 100 -	2100		- =00 E 500	
UMTS			- 300 - 400	
HSPA			60 ⊾ 160	
Upgra		at 13 at 5 ft a 2008 - 1		
LTE			± 500	

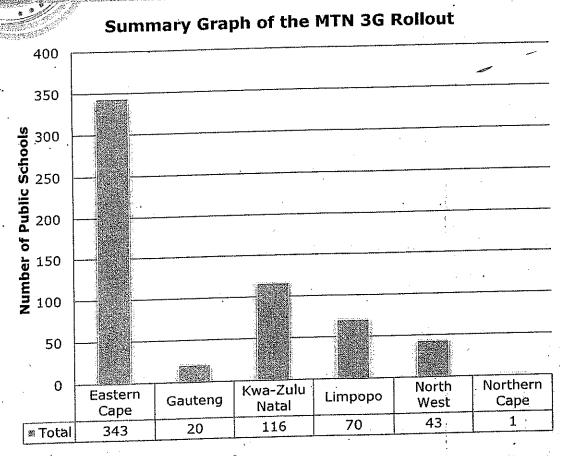
# Licence Obligation: USO schools connectivity

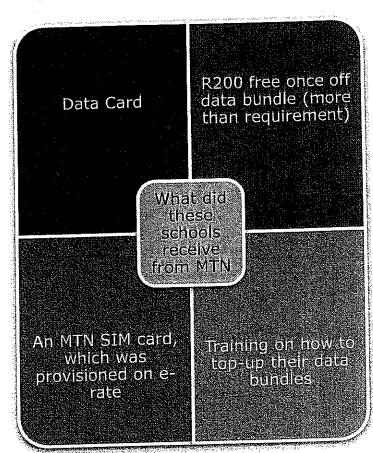






### Previous Schools Connectivity Rollout





MTN rolled out internet access to <u>593</u> schools as part of its previous 3G licence obligations based on list of schools provided to MTN

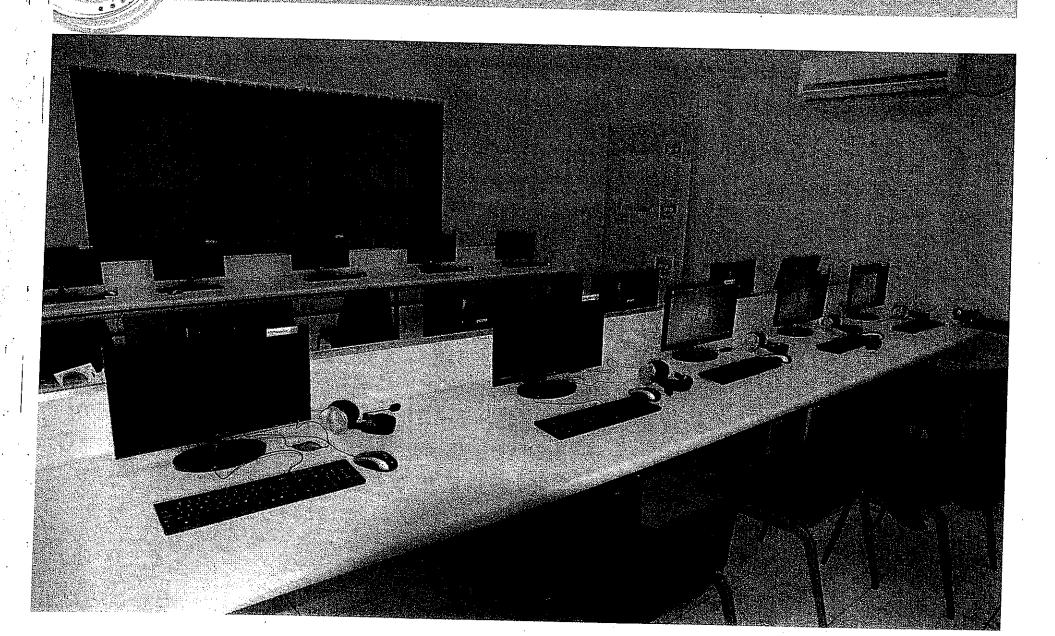
# New licence obligation: Schools connectivity



- Schools connectivity obligations reviewed and amended in April 2014
- Internet connectivity model was amended to the ICT solution which involves a full computer laboratory with notebooks or tablets on a mobile trolley
- MTN currently in the process evaluating tenders to appoint a service provider to rollout the ICT solution in 1500 schools
- MTN's USO budget R257 million has been set aside to deliver this obligation
- Coordination is required between MTN, DBE and ICASA to ensure successful roll out

# MTN's Corporate Social (CSI) schools connectivity program







#### Lessons learned - CSI program

- MTN has identified the following valuable lessons through CSI schools connectivity rollout:
  - In many schools visited after implementation, the computers and/or servers were stolen or were not operational (faulty, no tech support provided by school).
  - In most cases, no dedicated ICT educators are available, therefore facility is underutilised or not at all.
  - In most schools the modems were available but the SIM cards removed and unaccounted for.
  - Educators did not utilise the whiteboard and the data projector citing inadequate training.
  - Laboratories were locked, only the principals had keys (limited access).
  - In one school, the principal removed all equipment immediately after installation and locked it in a strong room for safety, as a result learners were not aware that there is a computer laboratory.

MTN has adapted the programme to ensure sustainability of the program. Intensive monitoring is required to ensure success.

#### Broadband rollout challenges ...



#### 2

### Absence of Rapid Deployment Guidelines

- Local government approval process hampers rollout (Rapid deployment guidelines are essential to facilitate fast rollout) for example:
  - In the Western Cape land use application on average is 6 − 12 Months and thereafter the building plan application: 2 3 Months
  - Buffalo City consent use can take anything between 8 to 16 months;
  - In one Gauteng Municipality we were awaiting a Building plan approval for 30 months
  - Civil Aviation Authority approval for sites over 50meters approx. 120 days;

### 3

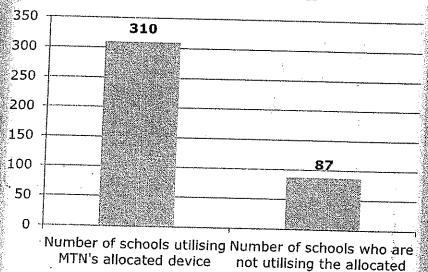
#### Lack of high demand radio frequency

- As mobile operators evolve to newer technologies such as LTE, we still need to support those initial legacy platforms such as GSM.
- Refarming spectrum for broadband services has limited scope as ultimately it will degrade the quality of service to existing customers.
- It is for this reason, that additional spectrum is required to cater for the growing data demand without negatively impacting quality.

## Concerns in respect of the previous 3G USO rollout

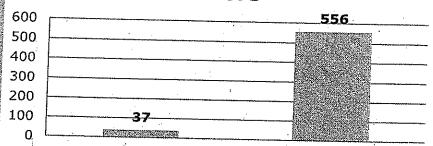


# E-rate SIM cards not found in the allocated MTN data card



device from MTN

## Dormant vs Active E-rate Users



ACTIVE USERS - Number of schools who have loaded data bundles (discounted at 50%) in the last 90 days

DORMANT USERS -Number of schools who have not loaded data bundles (discounted at 50%) in the last 90 days

Only 37 schools out of the 593 are active (i.e loaded data bundles at 50% discount within the last 90 days) and utilising the internet service.

#### Recommendations for new SC rollout



- Based on the learning's and audit findings by MTN, MTN would like to make the following recommendations:
  - The programme must be sustainable in the long run.
  - The DBE should put in place training to ensure change of mind-set by educators towards ICT and the sustainability of the initiative.
- Enforce accountability and ownership of the facilities, including insuring school property in the event of theft or damage is necessary.
- Schools must be assigned a trained ICT educator so that the benefits can be realised.
- SIM cards and equipment are targets for theft and fraud:
  - SIM cards must immediately be deactivated when removed from the devices they were provided with.
  - Security must be in place to safeguard equipment
- Internet connectivity via educational portal (provided by the DBE) so that access and content can be monitored. This has recently been put in place via the Department of Basic Education cloud portal

### CSI schools connectivity program



- MTN Foundation schools connectivity program aims to improve the standard and quality of teaching and learning through the use of technology.
- MTN CSI program is focused on:
  - Maths, Science and Technology program targeting learners and educators;
  - Science Centre development; and
  - Schools Connectivity.
- \* MTN CSI Education spend 2008-2013 = R129 849 609 = 34% of the overall CSI budget.
- Number of schools connected to date 361 schools have been connected since 2003.
- 129 schools connected 2003 to 2007 no longer function. The reason for this is:
  - Equipment has reached end of life span and has not been upgraded; or
  - Equipment has been stolen.

MTN will still roll out 45 computer labs this year.

#### Broadband rollout challenges ...



### 1

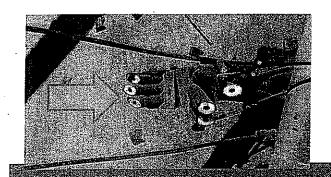
#### Vandalism

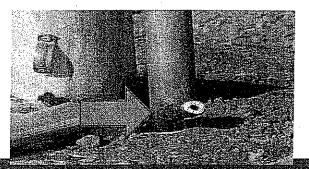
MTN faces certain challenges which frustrate broadband rollout.

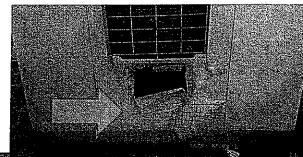
- Vandalism and copper theft. The impact on the industry due to the theft/vandalism of copper is significant, e.g.
  - Security Costs
  - Replacement Costs
  - Service Denial to customers
- Customer impact:
  - Service Unavailable (Voice, Data, SMS and VAS)
  - Emergency Services Impacted
  - Customer/Businesses use Mobile Operators for Services.

Menter	T0[a]
Jan Feb	3 7
Mar	6
Apr May	9
- Jun	1
Jul	13 21
l Aug Sep	21 2
Totals	66

\*Example of one regions impact out of our six regions









## Questions?

