



**Operator QoS and QoE
Aspects
affecting OTT Applications
& Content Providers**

5th March 2019

MTN Rwanda





QoS & MTN Technical Capability

QoE & Brand Perceptions



QoS & MTN Technical Capability

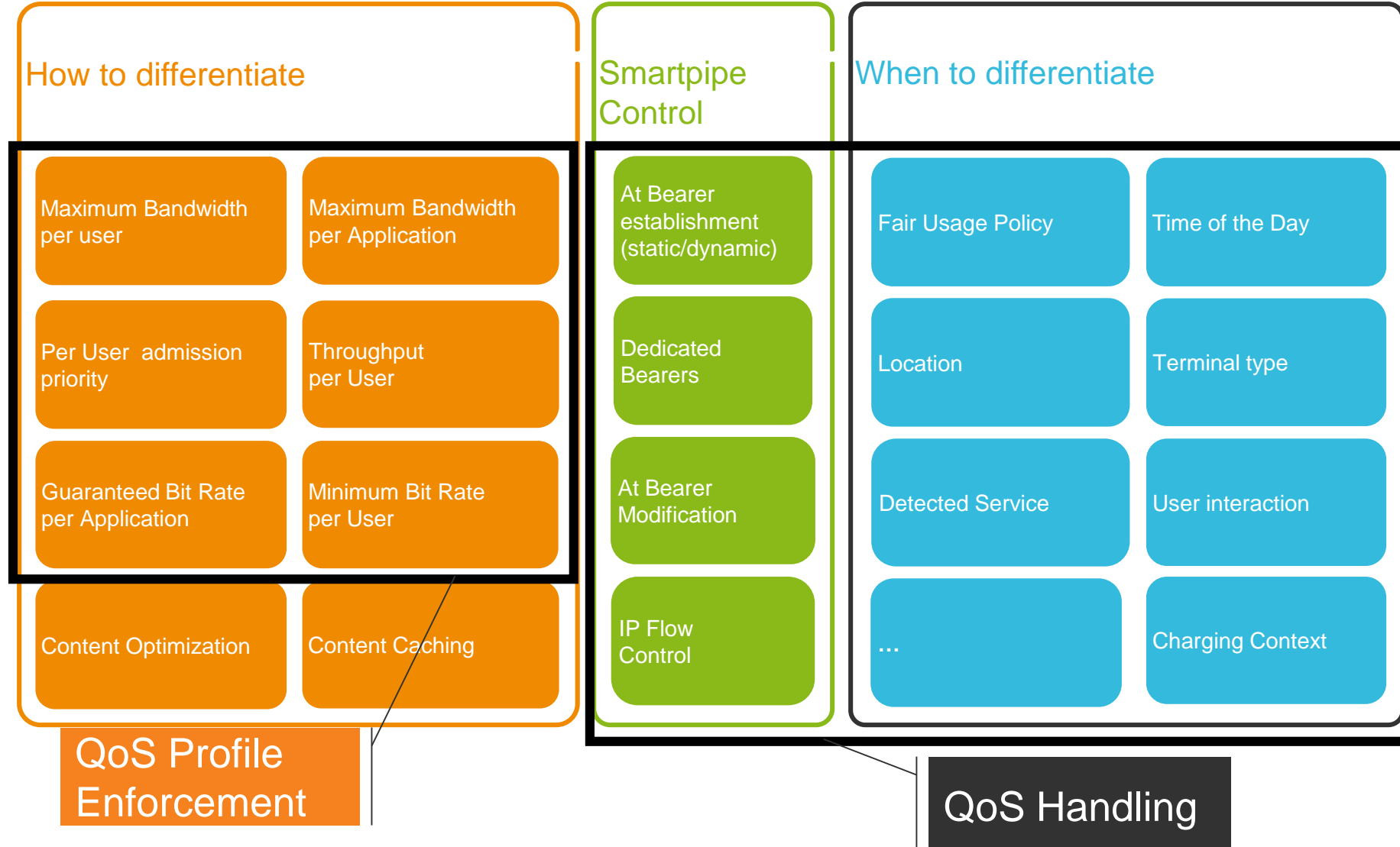
QoE & Brand Perceptions



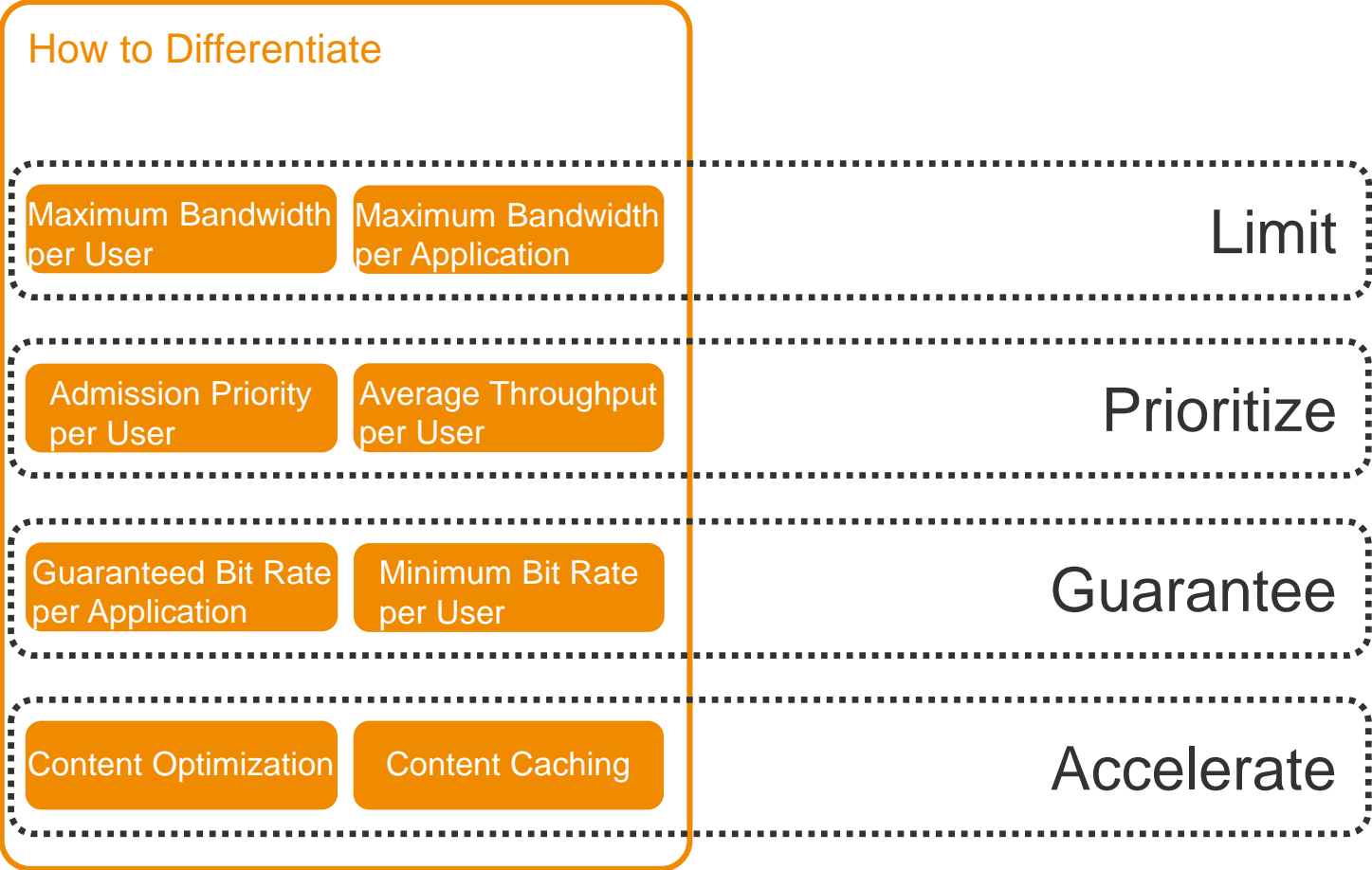
According to the ITU QoS is defined as:

“The totality of characteristics of a telecommunications service that bear on its ability to satisfy stated and implied needs of the user of the service”

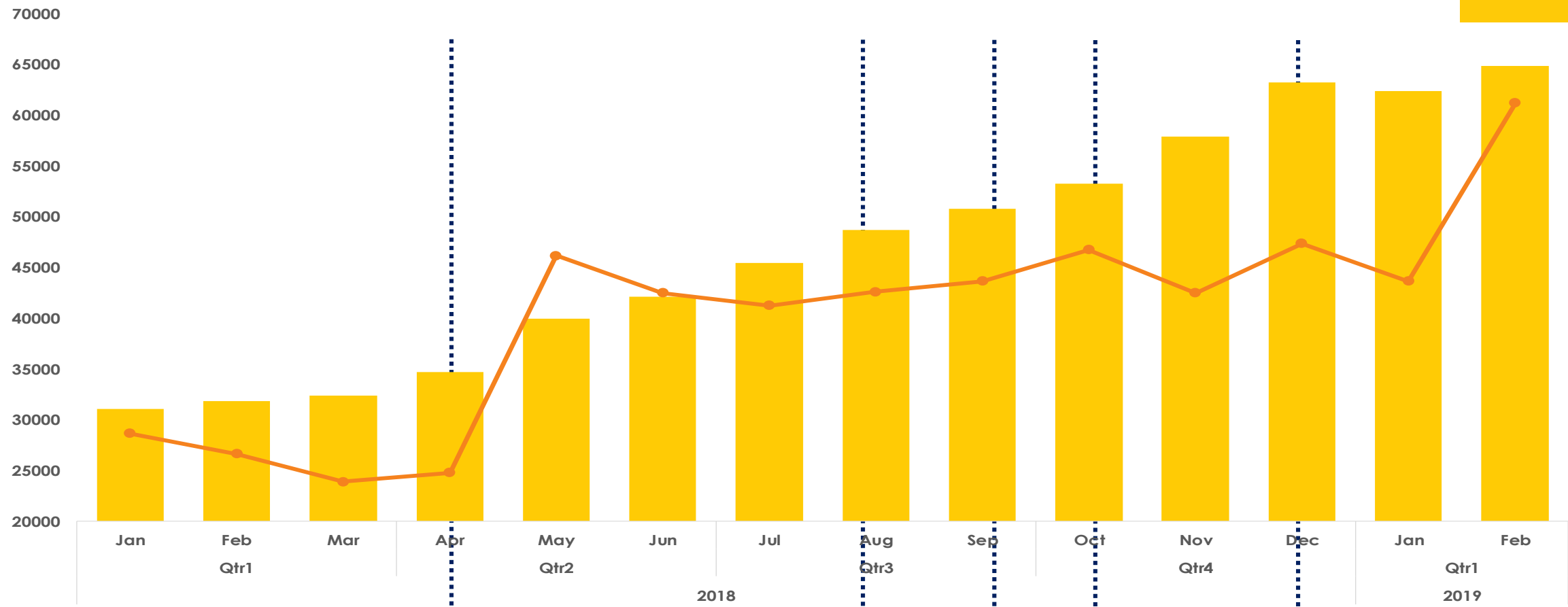
The QoS Differentiation toolbox



How partners can benefit from QoS Differentiation



QoS TRENDS – 3G Data Growth 2.7 x YoY (from 24TB to 65TB)



U900 Launch:

Kigali

West

South

North

East

Data Volume increased from 24TB/Day to 65TB/Day. Speed "Throughput" improved by 250%

NETWORK TRANSFORMATION PROJECT: MTN



Year 2017

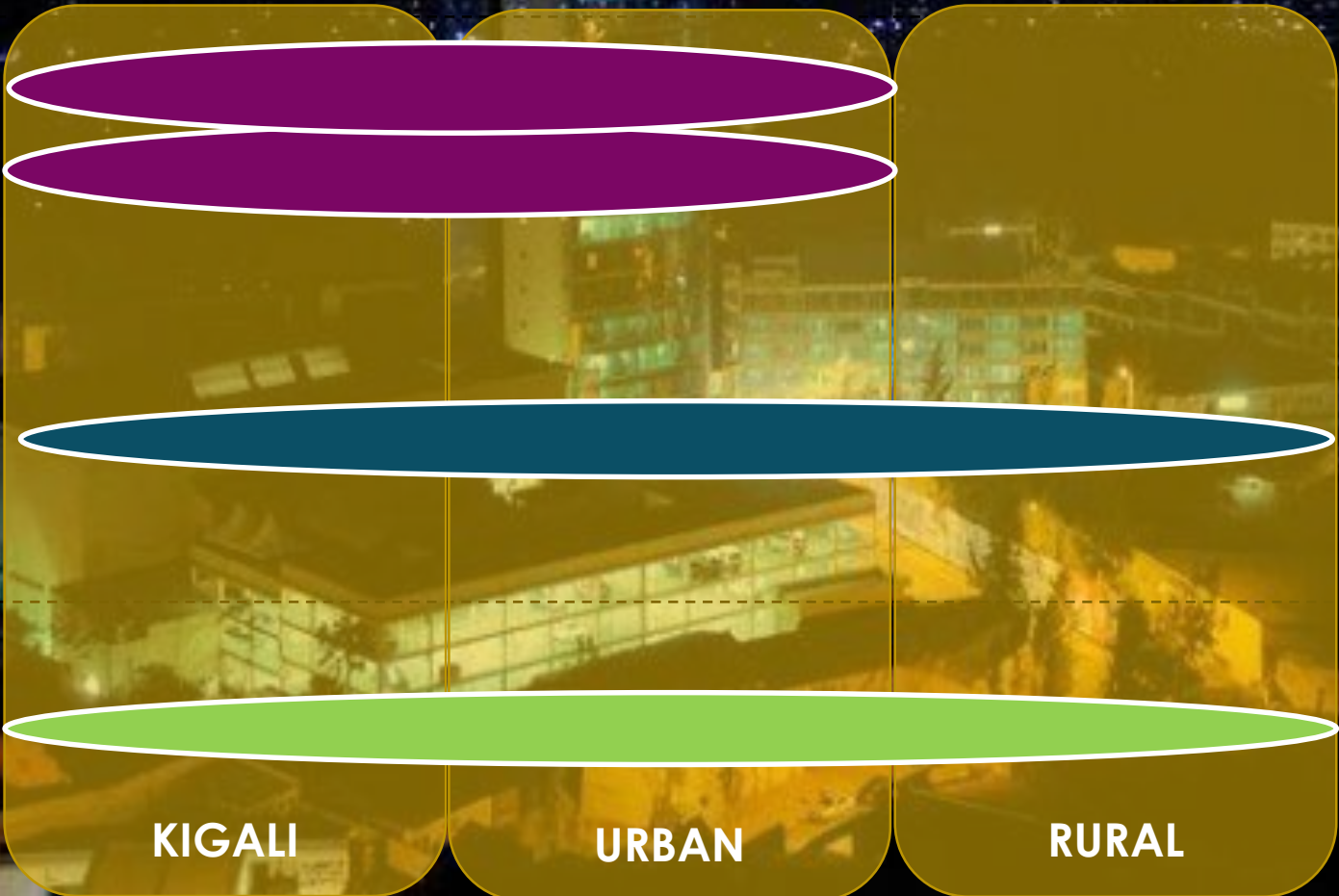
3G Carriers: 858

WCDMA 2100 – F1

WCDMA 2100 – F2

GSM 1800

GSM 900



KIGALI

URBAN

RURAL

NETWORK TRANSFORMATION PROJECT: MTN



Year 2018

3G Carriers: 1939

WCDMA 2100 – F1

WCDMA 2100 – F2

WCDMA 2100 – F3

GSM 1800

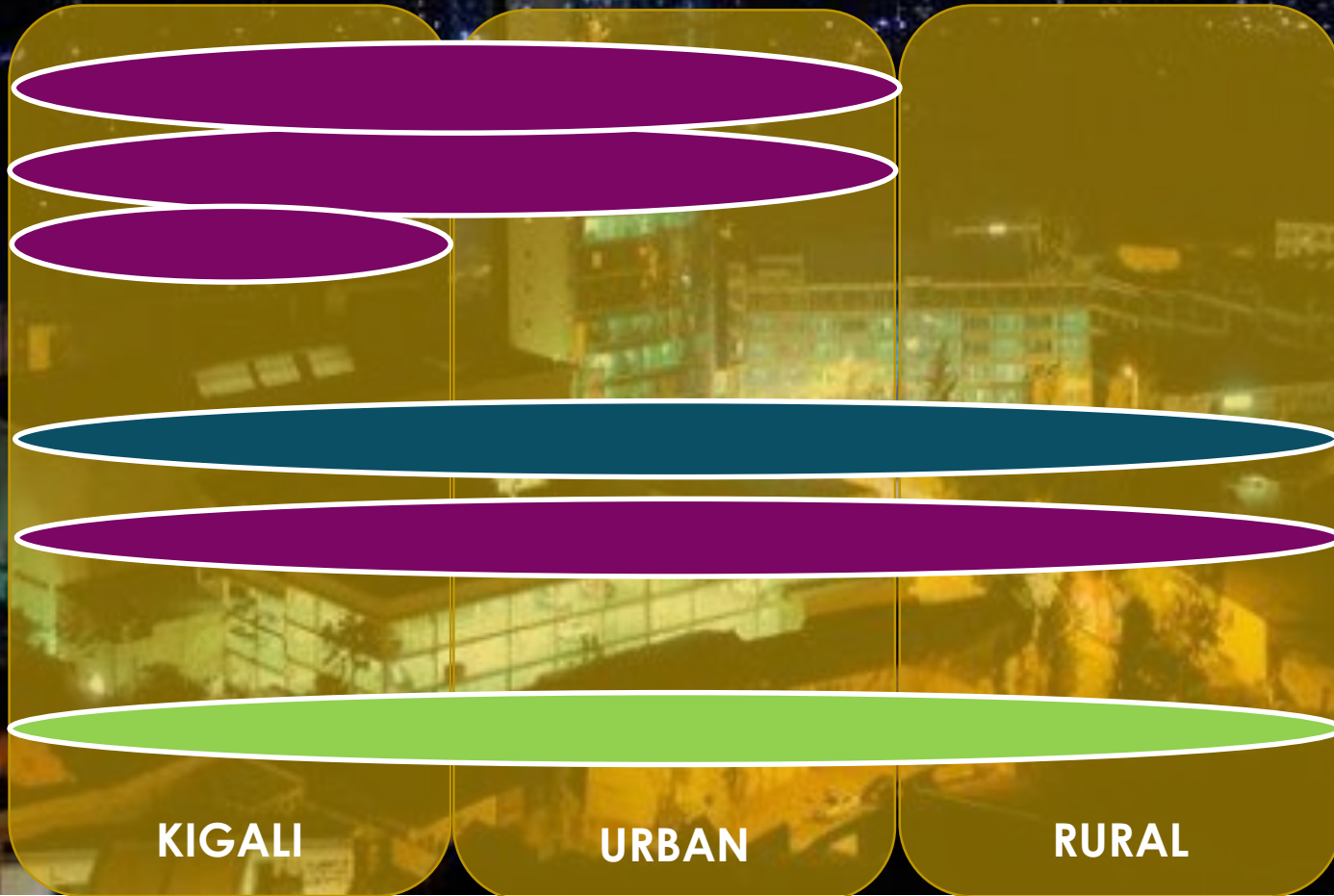
WCDMA 900 – F4

GSM 900

KIGALI

URBAN

RURAL

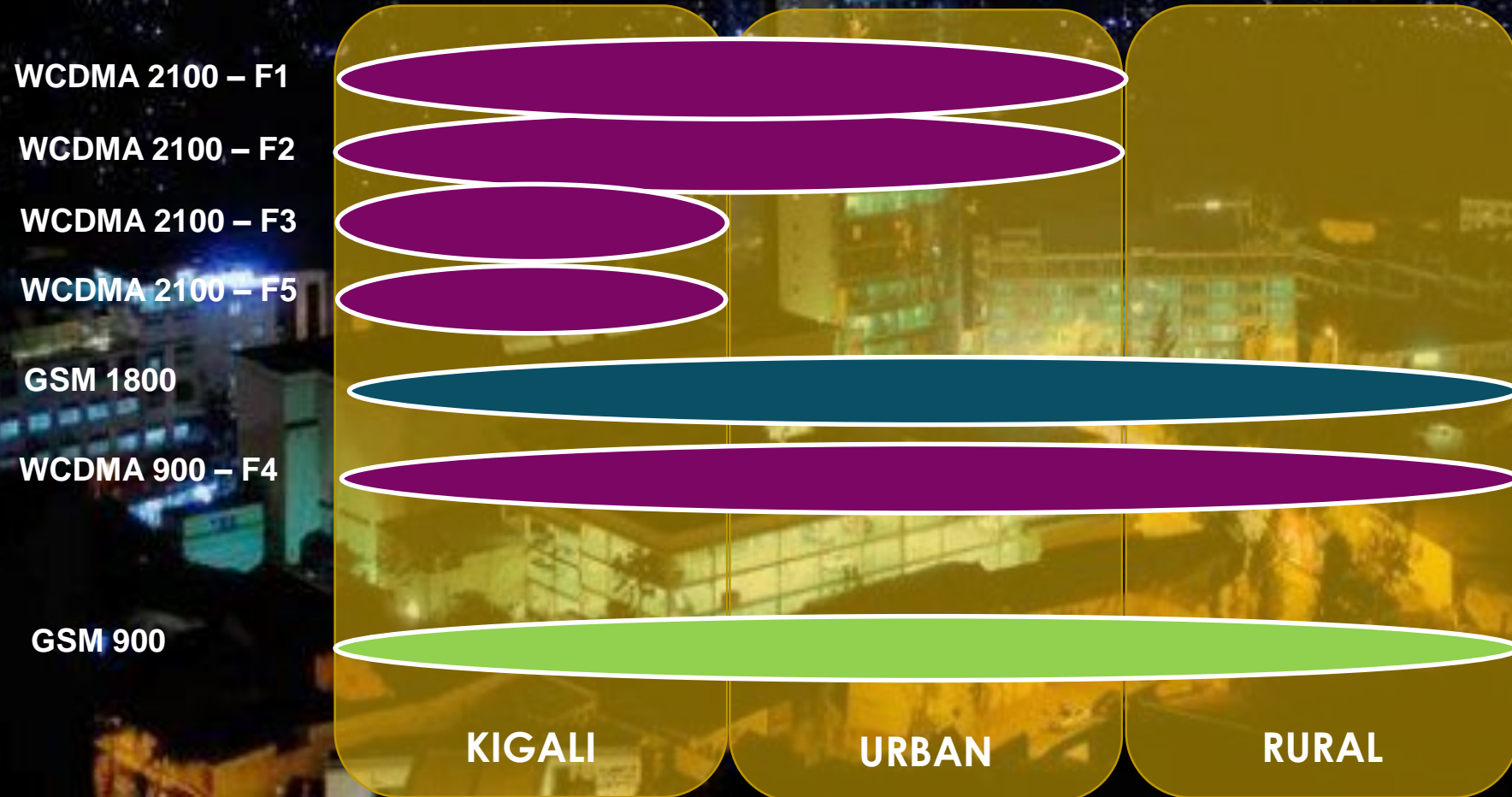


NETWORK TRANSFORMATION PROJECT: MTN



Year 2018 - Revised

3G Carriers: 2154





Service Aware Policy Controller

- Wide set of functions:
 - Flexible Rule Engine for dynamic differentiation
 - Differentiated control per subscriber and applications
 - Quota management including Shared Data Plans
 - Policies for **IoT** or Enterprise domains
- Innovative solutions
 - Network Instance Slicing
 - Intelligent traffic steering
 - Real-time event streaming for analytics
 - OTT monetization
 - Optimized Policy and Charging integration

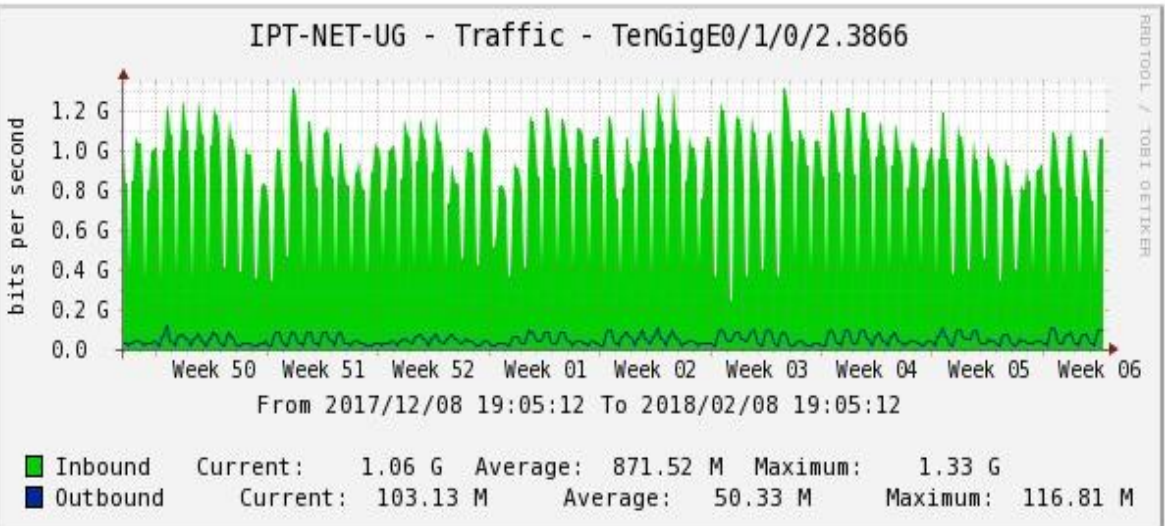
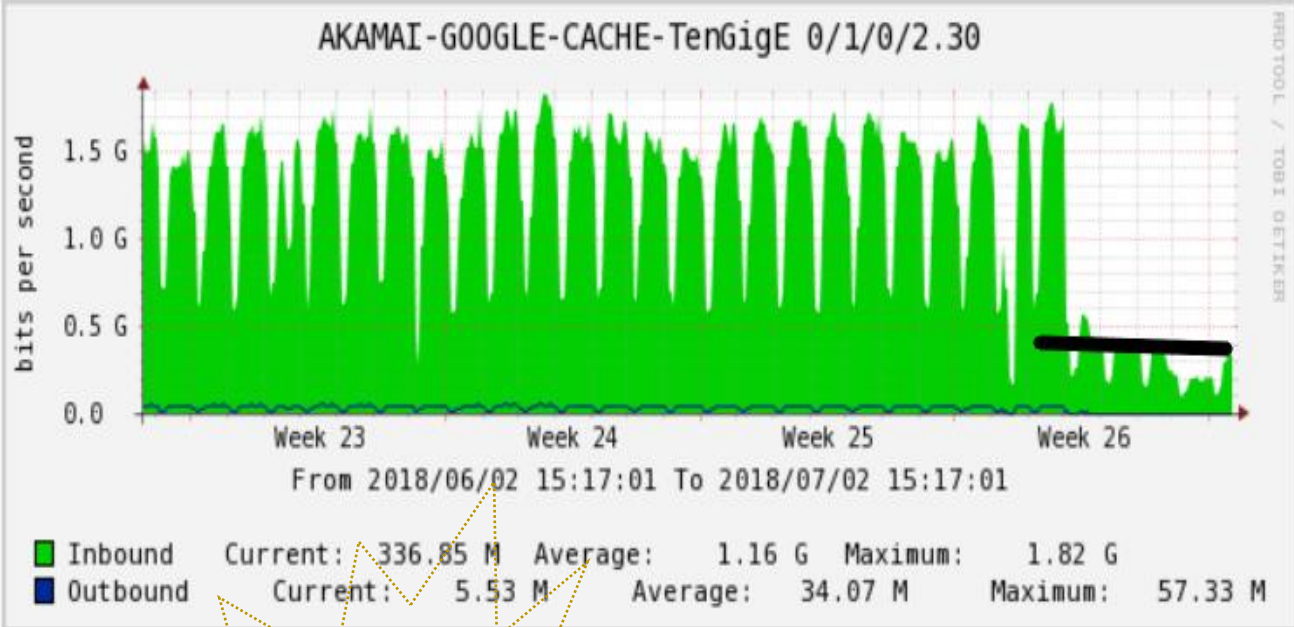
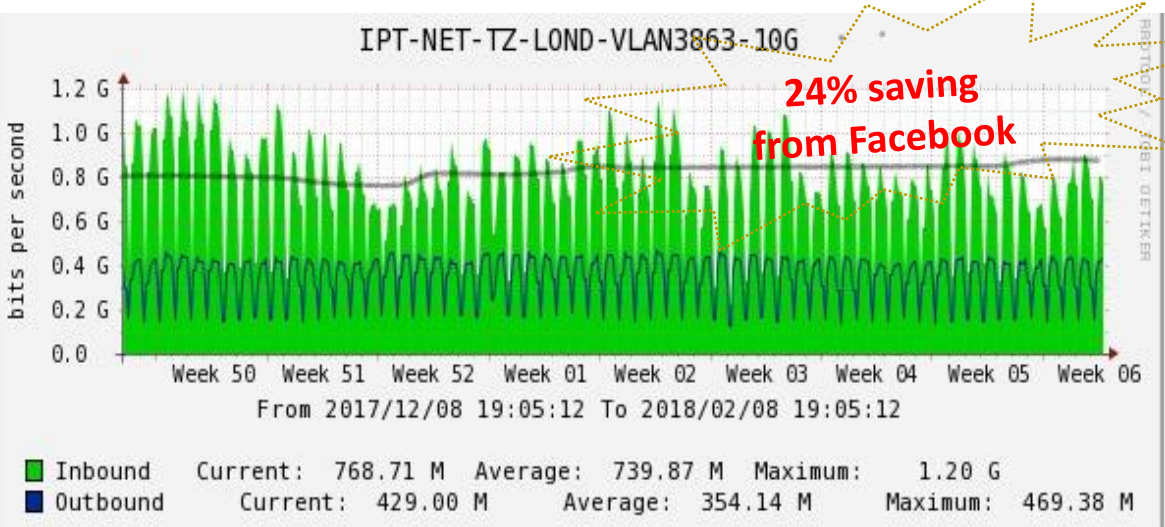
Quality of
Experience

Innovation
Adaptability

Differentiation
Flexibility

Service Caching and Video On Demand

Google & FB Cache Performance savings



Google cache saves 20% of internet traffic



NETFLIX


While there is a growth in need of video streaming and on-demand video services which implicates high quality service translated in user experience, MTN Rwanda has on-board **NETFLIX** caching. This comes after we have implemented caching for **Google** and **Facebook** and results from User are outstanding.

We connected our first Client on **NETFLIX** on 25th Feb,19





In addition, MTN with Partnership with **Kwese TV**, **Vu Clip** and **Star Africa Media** is working on deployment mobile based TV and Video on demand solutions. Which will give to the customer a significant range of offers from anywhere at anytime.

MTN Rwanda partners with Facebook to launch Facebook Flex



No Internet bundle?
No worries!
Go with Facebook Flex.
Browse free.facebook.com to use Facebook Flex.

mtn.co.rw Dial ***345*9#** to go to Facebook Flex.



QoS & MTN Technical Capability

QoE & Brand Perceptions



“The degree of delight or annoyance of the user of an application or service.

It results from the fulfillment of his or her expectations with respect to the utility and / or enjoyment of the application or service in the light of the user’s personality and current state.”

MTN Strategy



Brand Perceptions



- Is it QoS or QoE that affects User Brand Perceptions?
- Does QoE affect the brand perception of the OTT/Service Provider or of the Operator?





Moving KPIs closer to the user experience, by unifying market, networks and systems in proactive feedback loops, in order to focus attention where it matters the most

NPS Measurement method



Performance Ratings: Various measurement scales are used, giving respondents two levels to rate the aspect in a question positively, two levels to rate the aspect negatively and mid levels for a neutral ratings.

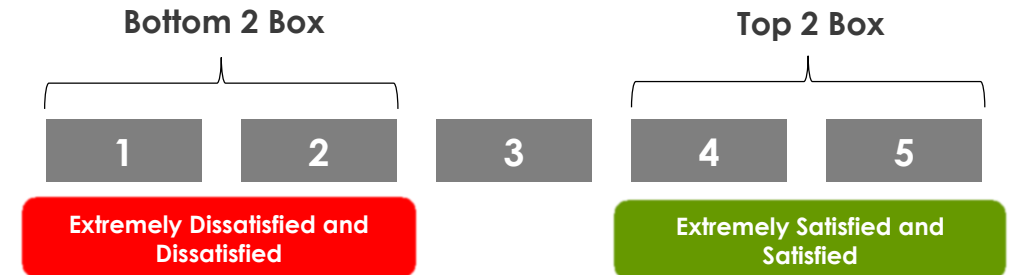
Top 2 Box: T2BS is an abbreviation for Top Two Box Scores, and refers to responses (percentages) received for the two scale-points at the most positive (e.g. 4 or 5 out of 5) end of a scale (on all scale questions).

Bottom 2 Box: B2BS is an abbreviation for Bottom Two Box Scores, and refers to responses (percentages) received for the two scale-points at the most negative (e.g. 1 or 2 out of 5) end of a scale (on all scale questions).

Example 1:



Example 2:



Mean / Average Score: The mean value or score of a certain set of data is equal to the sum of all the values in the data set divided by the total number of values. A mean is the same as an average.

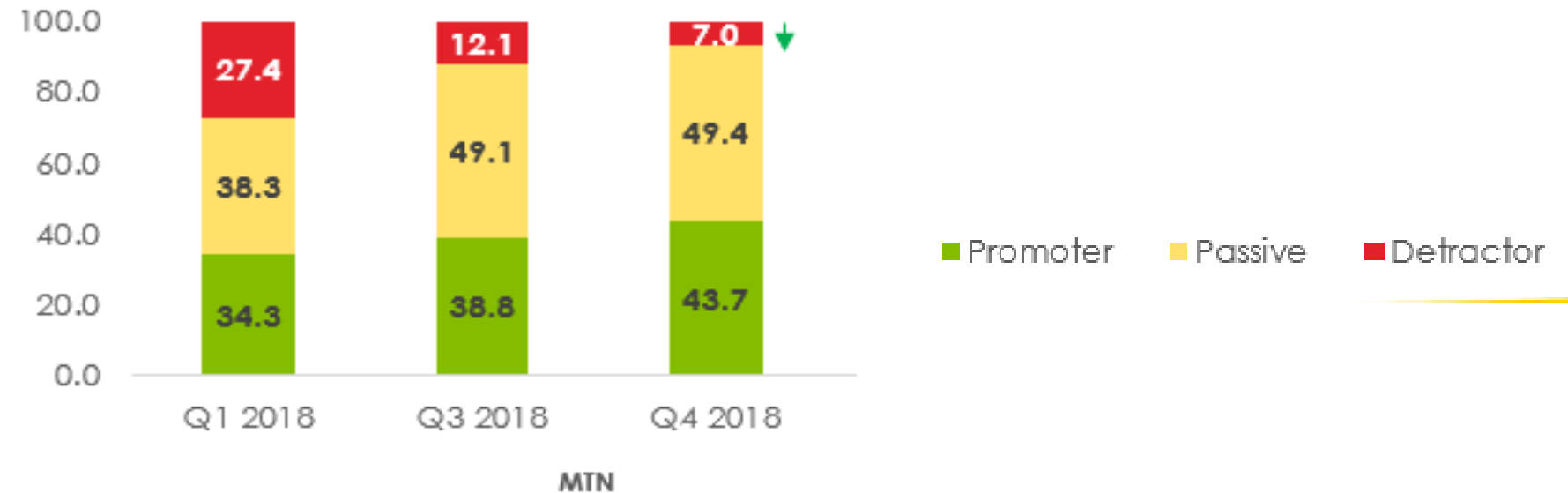
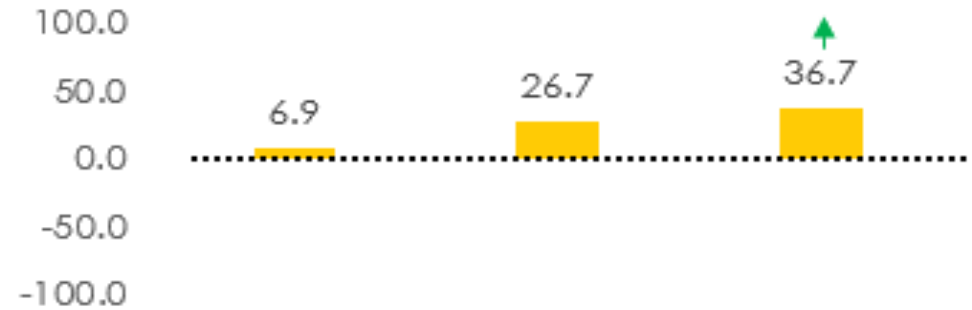
Formatted Mean Score: Based on the below formula and converts a rating out of 10 into a percentage:

$$\frac{(\text{Unformatted mean} - 1)}{(\text{highest rating} - 1)} \times 100 = \text{Formatted Mean}$$

MTN's Brand Status



MTN displayed a **significant improvement in NPS** in Q4 2018





You ask, we deliver.

You asked for a convenient way to access our products. **We delivered MyMTN App, the first App in the country that is an all in one self-care platform.**

#TuriAbanyu

everywhere you go



mtn.co.rw

THANK YOU

(#)

