



**State of the Mobile Web Africa
2016**

FOREWORD

Twenty one years ago, two Norwegian developers started Opera Software with the vision of an open, affordable internet. In the mid 1990s, the view that access to the internet should be a universal right was a radical one. With less than 1% of the world online at the time, it was a pipe dream that perhaps only the most optimistic technophiles could have imagined. Indeed, only a few years earlier, at the end of 1991, the first IP connection was made between Rhodes' University Computing Centre in Grahamstown, South Africa and the home of computer scientist, Randy Bush in Portland, Oregon.

The birth of mobile in Africa really occurred at the turn of the 21st century and by the early 2000s, mobile network operators were working across the continent to connect Africans everywhere. We launched our famous Opera Mini mobile browser in 2006 and many of these operators became and remain our close partners. The advanced compression offered in our products enables these companies to offer a full internet experience to their subscribers for less.

Ten years on, we are not only witnessing a far more connected continent but we're celebrating 100m African Opera users across our product portfolio. It's with immense pride that against this backdrop we maintain our vision of an open, connected world, powered by great technology and services.

This is essential in order to break down barriers that limit access to information, education and fun. This report aims to shed light on the opportunities and challenges we experienced in bringing the next 100 million - and beyond - online. It will also take an in-depth look into some of the data and statistics of the African mobile web. I hope you find the information herein valuable and I look forward to the next ten years of the mobile web in Africa.



Lars Boilesen, CEO Opera Software

HEADLINES



Opera Mini is Africa's favourite browser with **58% market share** overall and approx **25% of Android market share**



Ghana has the **highest percentage** of Opera Mini users on the **Android platform (73%)**



Since 2014, average monthly data usage by Opera Mini users in Africa has **increased by 171%**



Of Nigeria's **16 million Facebook** users, around **70% access Facebook** via Opera Mini



Visits to streaming video websites on Opera Mini in Africa have **increased 36%** since 2012



Ghanaians, Kenyans, Seychellois and Mauritians are the **highest data users** with an average usage of over **160MB/month**



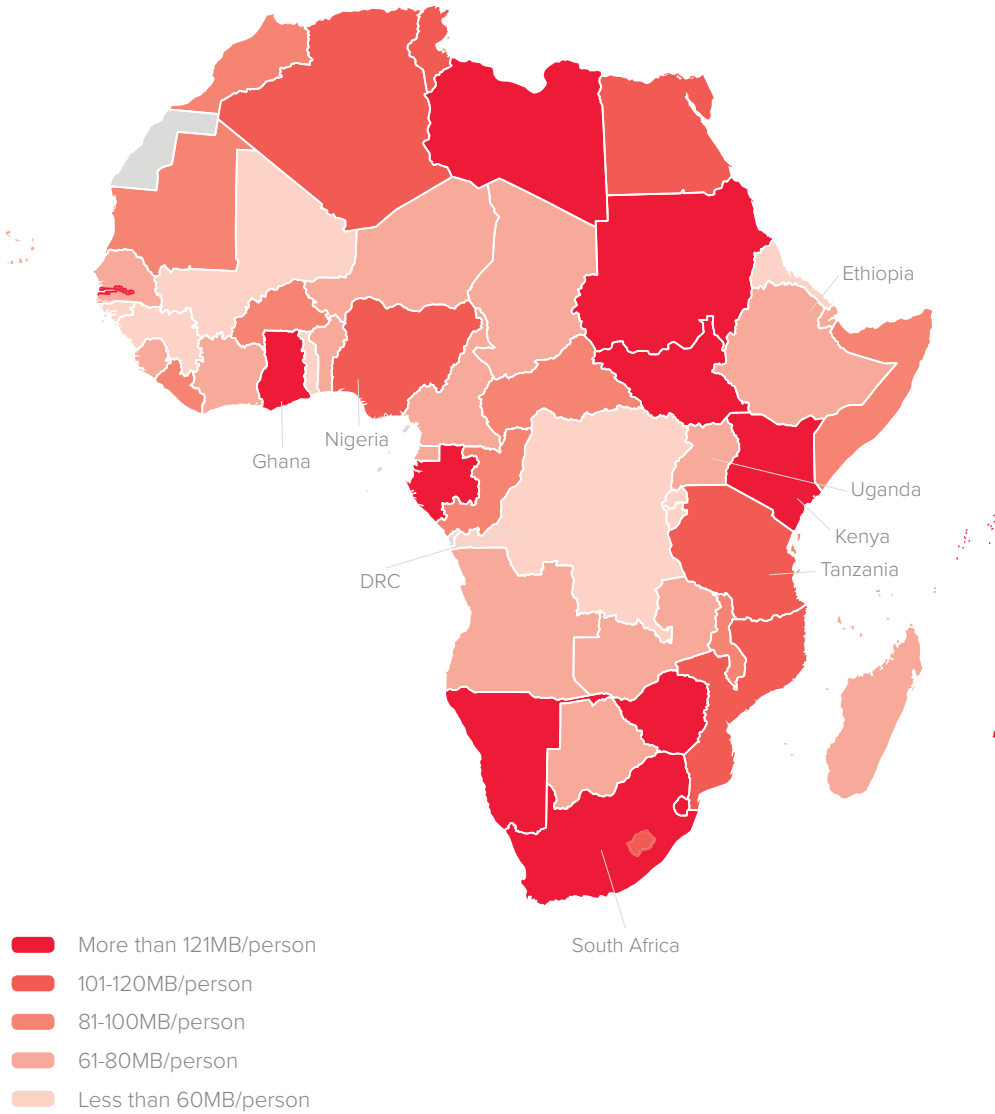
Due to Opera's compression technology, in 2016, Nigerian, South African and Kenyan Opera users **saved data** equating to approximately **US\$280m, \$111m and \$116m respectively**. These three markets alone account for over **\$500m** in data savings

30% of data is wasted in the background



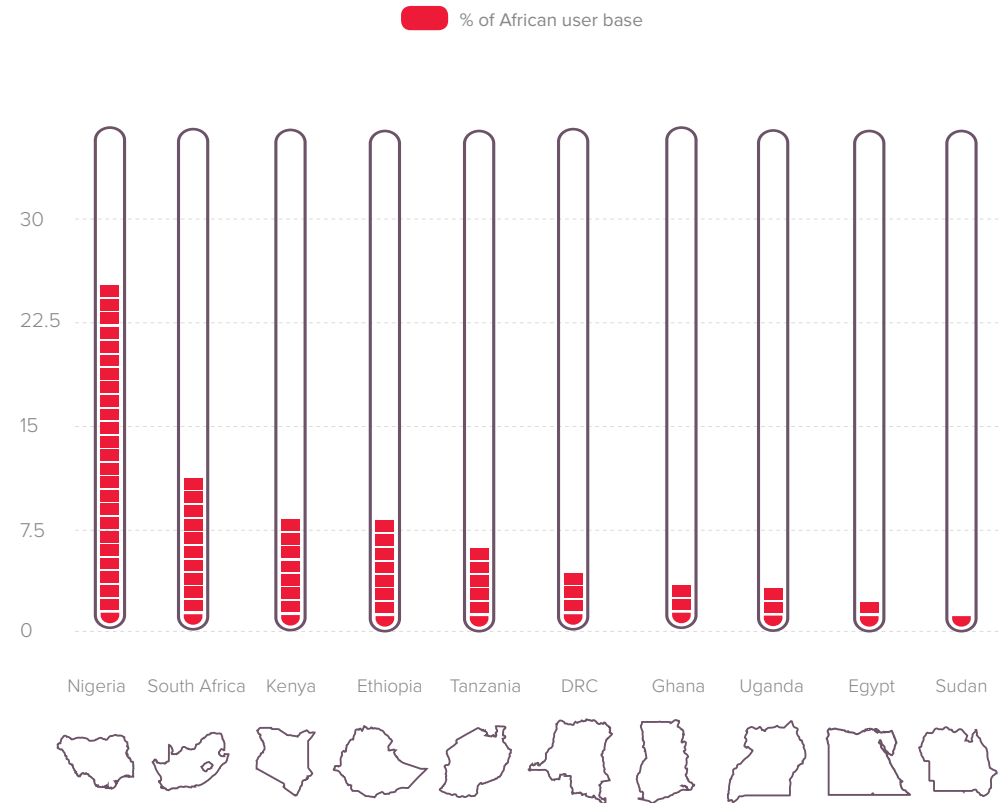
South African users are more likely to access **news and e-commerce apps** than **Nigerians**, who in turn, are more **active on social platforms**

Africa's monthly mobile data usage



THE AFRICAN MOBILE WEB: Opportunities and Challenges

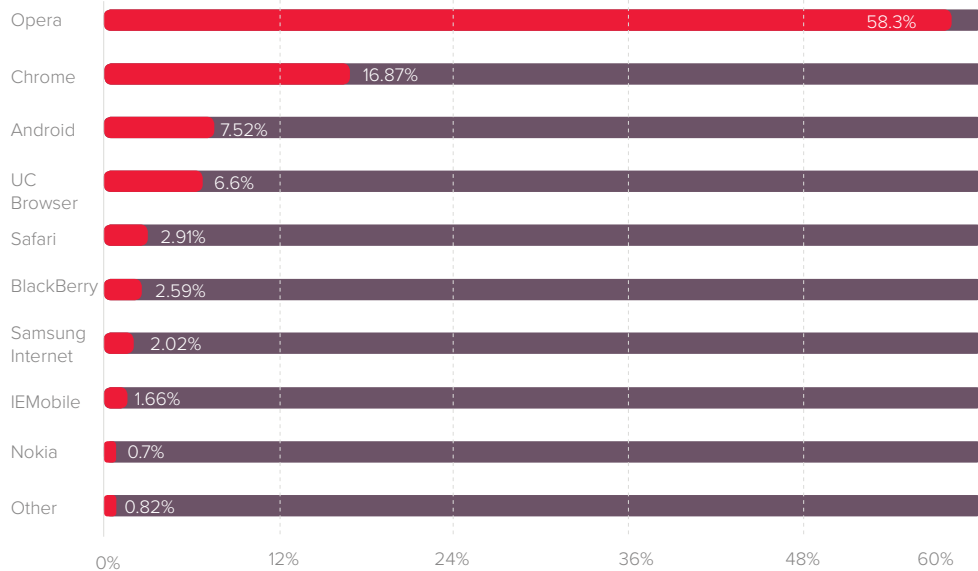
African Opera Mini users by country



Africa's dynamic mobile internet space presents opportunities for consumers and businesses alike. However, many challenges remain. This dichotomy is one that Opera has been responding to over the past decade. This section looks at where the opportunities lie in the adoption of the mobile web in Africa, how these are being taken advantage of and what challenges must be overcome in order for all Africans to enjoy the benefits of the mobile web.

Top 9 Mobile Browsers in Africa from Sept 2015 to Sept 2016

STATCOUNTER GLOBAL STATS

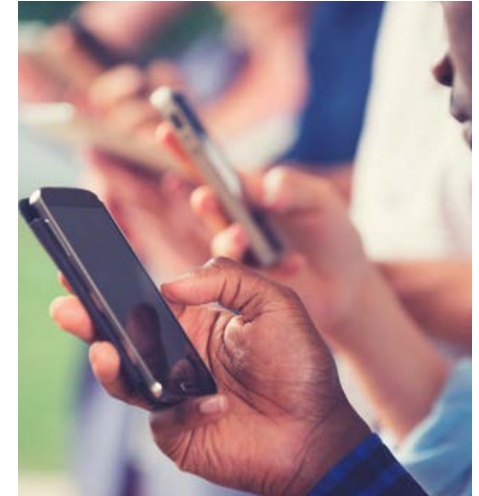


OPPORTUNITIES	CHALLENGES
Increase in data usage	High data costs
More, cheaper smartphones	Background 'data theft'
Growing appetite for media-rich websites and applications	Limited network capacity
More local, relevant content	Increase in page sizes

OPPORTUNITY: Increase in data usage

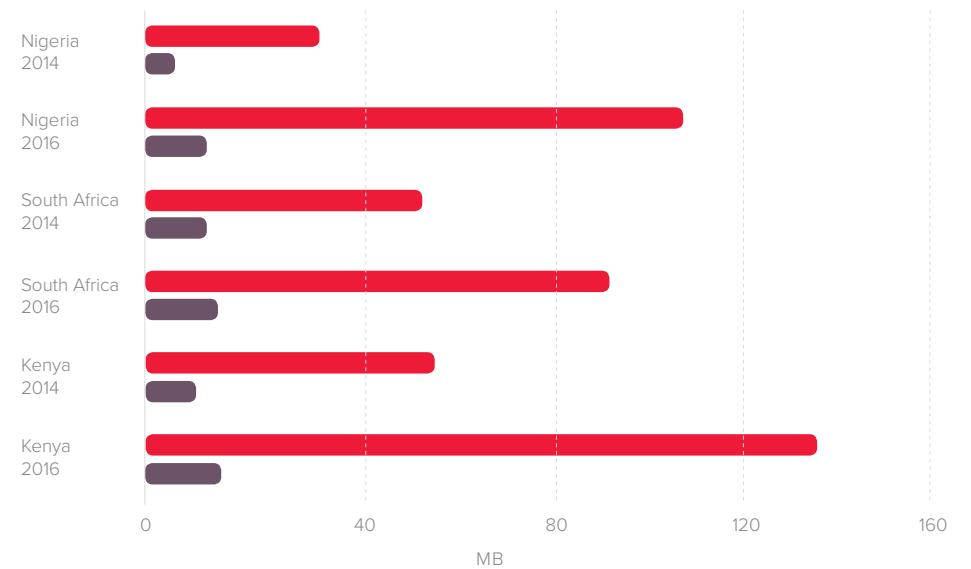
Since 2014, average monthly data usage by Opera Mini users in Africa has increased by 171%. However, due to Opera Mini's advanced compression technology, users have saved the vast majority of their data.

We consider **data compression** to be as relevant and useful now as it was ten years ago



Av.data usage pp/m Aug 2014 vs Aug 2016

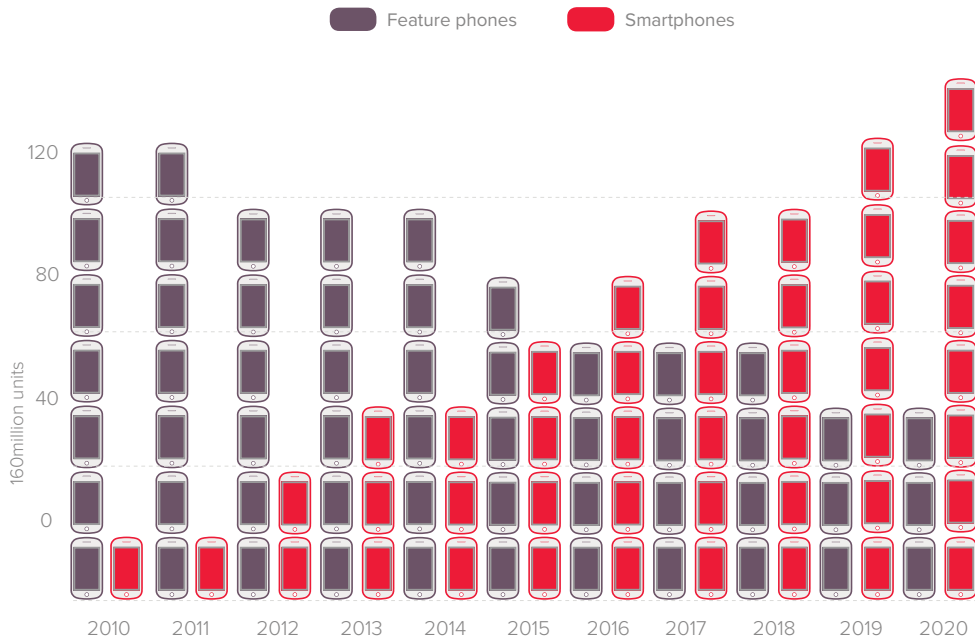
Uncompressed data sent to Opera servers Actual data used by OM users



By 2021 there is set to be 13-fold increase in mobile data traffic in Africa. This will be driven by the increase in smartphone subscriptions and demand for media-rich content and data-intensive apps¹.

OPPORTUNITY: More, cheaper smartphones

2016 marks the first year that more smartphones are being shipped in Africa than feature phones². Whilst this isn't necessarily reflective of the handsets currently in use, it's a sign of Africa's Android future. Indeed, Africa's smartphone penetration is expected to reach 50% by 2020, from only 18% in 2015³.



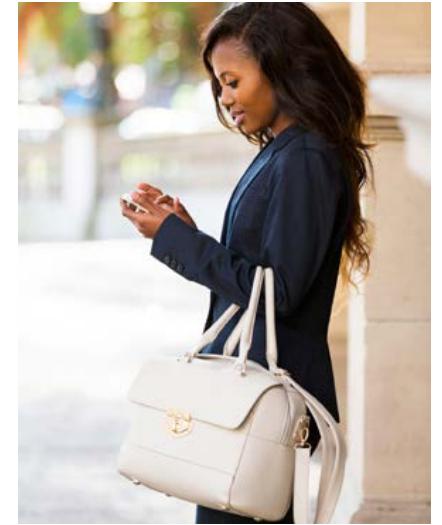
QZ.com 2015. data: Jefferies & Co via statista

¹ Ericsson Mobility Report: On the Pulse of the Networked Society, June 2016

² Jefferies & Co via Statista, 2015

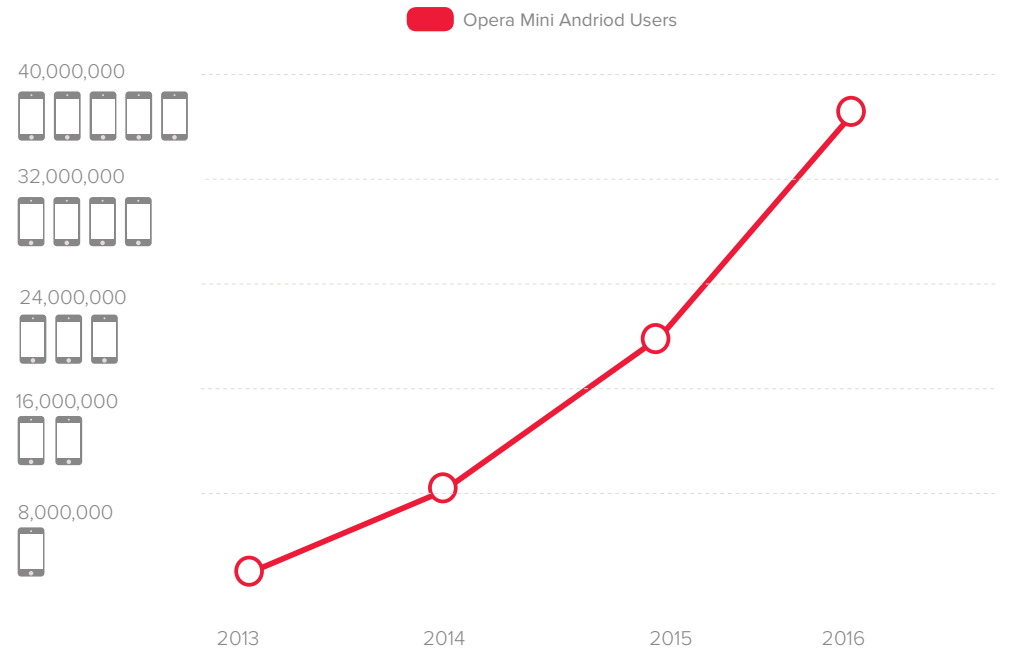
³ McKinsey Global Institute: Lions on the Move II: Realizing the potential of Africa's economies, September 2016

According to the International Data Corporation, 89% of all smartphones shipped in Africa during the first quarter of 2015 were powered by Android and 45.1% of those were priced below \$100⁴. Opera Mini's Android user-base in Africa grew 2,284% between 2013 and 2016, a far steeper growth curve than witnessed for African Android growth overall (estimated to be between 75% and 100%⁵). The reason for this dramatic growth is in part due to Opera's partnerships with handset manufacturers such as Tecno and Samsung, but can also be attributed to a refocus by Opera on the Android platform as the key to African connectivity, demonstrated by Opera Mini's product refresh with a native Android look-and-feel.



Visits to streaming video websites on Opera Mini in Africa have **increased 36% since 2012**

From feature phone to smartphone browser

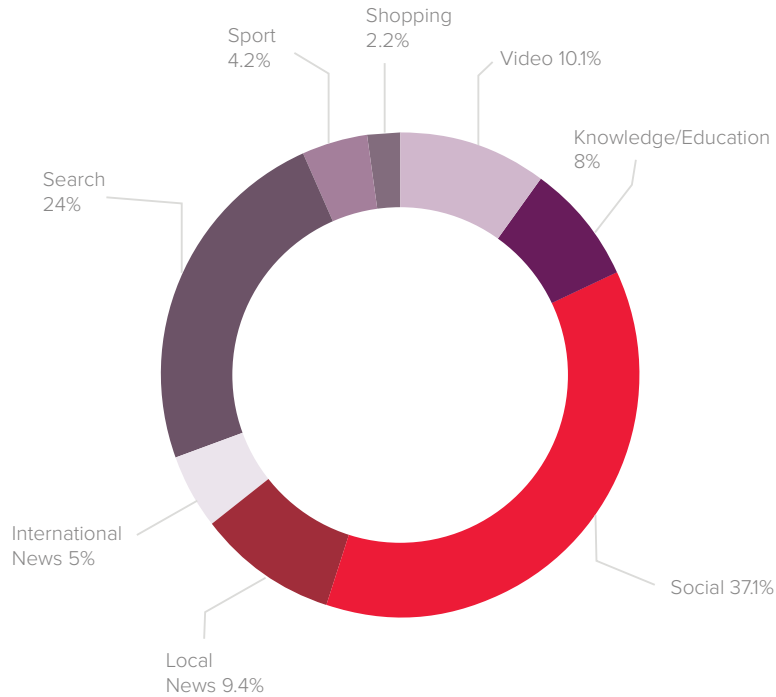


⁴ International Data Corporation, 'Middle East and Africa Smartphone Market to Top 155 Million Units in 2015 as Sub-\$200 Segment Surges' Jul 2015

⁵ Jefferies & Co via Statista, 2015

OPPORTUNITY: Growing appetite for media-rich websites and applications

Visits by website type on Opera Mini in Africa

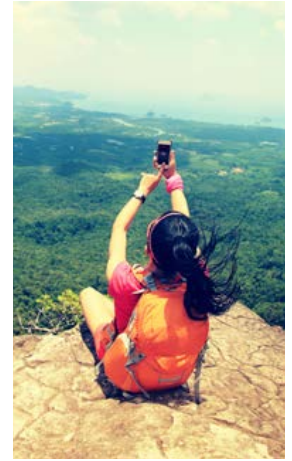


Overall, 42% of South Africans watch video content on their mobile devices (more than the global average of 30%)⁶ and 57% of Nigerians want to watch TV and video content on demand⁷. Visits to streaming video websites on Opera Mini in Africa have increased 36% since 2012. Users from Tanzania are most likely to visit websites such as YouTube followed by South Africa and Ghana.

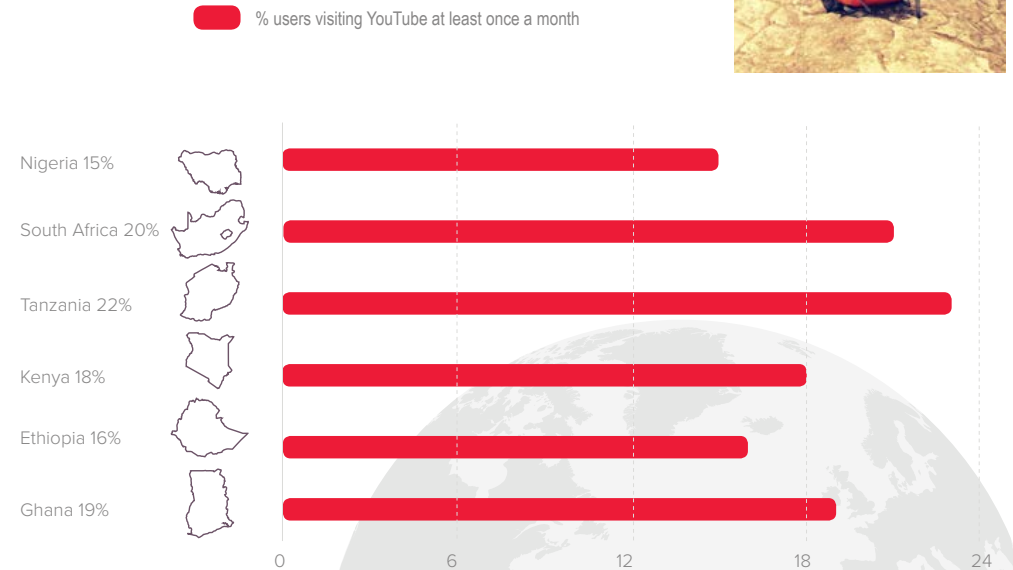
⁶Internet Advertising Bureau 'Mobile Video 2015: A global perspective', 2015
⁷Ericsson ConsumerLab: 'TV and Media in Nigeria', September 2015

South Africa leads in mobile application usage with around a third of the population using mobile apps. This compares to 31% in Ghana, 28% in Nigeria, 19% in Kenya and 18% in Uganda⁸. Ghana is Opera Mini's most mature Android market with 73% of users on Android. It is also the only sub-Saharan market where iOS features in the top ten platforms for Opera Mini users.

Opera Mini consistently ranks in Africa's top 10 free apps, overall, on Google Play; and comes in at around number 3 in the Communications category after Facebook Messenger and Whatsapp.



Opera Mini's Top African YouTube Countries



⁸Geopoll, World Wide Worx 'Mobile Africa 2015', 2015

Top free apps overall from Google Play in South Africa (Oct 2016)	Top free communication apps from Google Play in South Africa (Oct 2016)
1. WhatsApp Messenger	1. WhatsApp Messenger
2. SHAREit	2. Facebook Messenger
3. Facebook Messenger	3. Opera Mini web browser
4. Facebook	4. imo free video calls
5. Opera Mini web browser	5. WeChat
6. Instagram	6. MyVodacom
7. Facebook Lite	7. Truecaller: Caller ID \$ Dialer
8. imo free video calls	8. Caller ID & Block by CallApp
9. Uber	9. Skype
10. Capitec Remote Banking	10. BBM

Sense Tower Oct 2016

OPPORTUNITY: More local, relevant content

It is often said that content is king and this is no more true than it is in Africa. Opera Mini users are accessing local news as much as 300% more than in 2014 with popular websites being Naij.com, The Punch (Nigeria); EWN, Supersport and Daily Sun (South Africa); Daily Nation, The Standard and The Star (Kenya). The Opera Mini homepage focuses on bringing the latest news to users and over the years, Opera Mini has transformed from being solely a browser to being a portal for localised news headlines.

In 2015 Opera launched a partnership with Worldreader to provide a distribution channel for Worldreader's powerful library of free ebooks. Worldreader is a non-profit organisation that provides children and families across Africa with access to digital books, many of which are free of charge. The books in the digital library range from classic novels to traditional, African stories and are available in a variety of African languages. In just three months five million new readers joined the platform and now around two million African Opera Mini users read e-books via Worldreader every month.

CHALLENGES: High data costs

Data remains prohibitively expensive for many mobile users in Africa. This means that even if smartphone penetration is increasing, many people don't use their devices to their full benefit. Whilst someone in Germany on an 'average' salary can afford 500MB after working for just one hour, a Nigerian will have to work around three and a half days to afford the same. Indeed, it's not surprising that 53% of Africans can afford only 20MB per month⁹.

Research from Opera found that **30% of all mobile data is wasted in the background**

CHALLENGES: Background 'data theft'

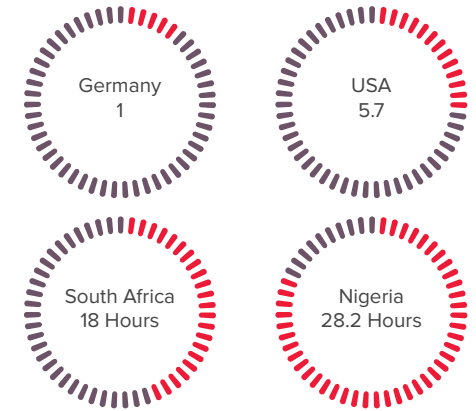
Earlier this year research from Opera found that 30% of all mobile data is wasted in the background. Background data is all the internet traffic that goes on when you're not actually using an app: email syncing, pre-fetching ads, news articles or feeds - even though you may never read them. Most apps are made to give a great user experience, not to save data. Unfortunately this means that many data users are essentially throwing away the equivalent of \$1 out of every \$3 spent on data.

⁹McKinsey Global Institute 2015

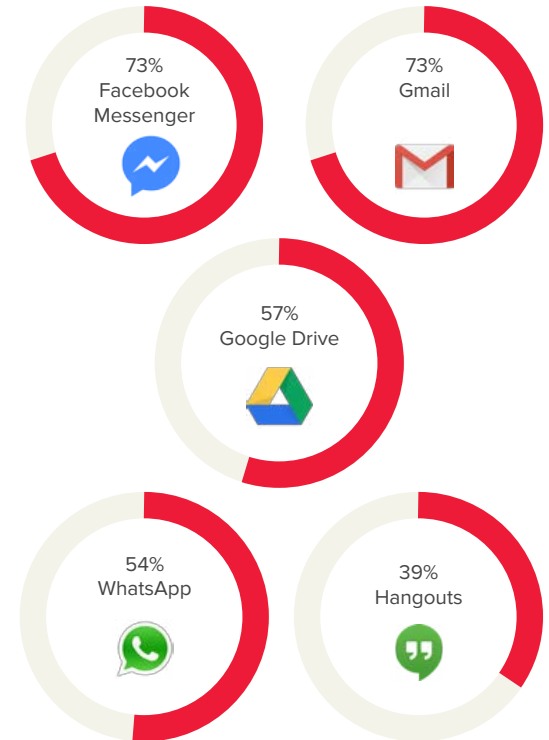
¹⁰Facebook Internet.org 'State of Connectivity 2014'

Hours of work to pay for 500MB

⁹ McKinsey Global Institute 2015



Estimated % of data used in the background by popular apps



Opera Max's Smart Alerts automatically identify apps that use a lot of data in the background. Opera Max then guides you on how to manage these data-hungry apps, using an easy, two-tap way to block apps from using your mobile data.

CHALLENGE: Limited network capacity

In Norway only around 400 people share a cellphone tower on average, whilst in Nigeria it's closer to 6,000¹¹. This means that even when 3G networks are available, due to congestion, the experience can be very slow. Mobile subscriptions in Africa are mainly GSM/EDGE-only but by 2021 almost 80% of subscriptions will be for 3G/4G¹². That said, the increase in number of cellphone towers and their capacity is not increasing nearly as quickly as the increase of data spent per person.

CHALLENGE: Increase in page sizes

Since 2012, the average size of web pages served to the mobile web has more than doubled and is set to double again by 2018¹³. This is due to larger images, trackers, bloatware, etc, which translates to users paying more for essentially, the same information.

In response to this, Opera this year launched its ad blocker for Opera Mini Android. The ad blocker in Opera Mini helps webpages load 40% faster than without the ad blocker technology. The compression technology used in Opera Mini and Opera Max can also help with issues relating to congestion and page sizes. A lighter mobile web can help get you online, even in poor network conditions.

A lighter mobile web can help get you online, even in poor network conditions.

¹¹ NCC & Gov. Norway

¹² Ericsson Mobility Report: On the Pulse of the Networked Society, June 2016

¹³ Mobile HTTP Archive, 2015

Spotlight on Nigeria



Nigeria is the most 'mobilised' country in the world, ahead of South Africa and India, with 76% of internet traffic going through mobile¹⁴.



Between 2011 and 2016 smartphone penetration rose 121% from 7m to 15.5m¹⁵ and Opera's Android users grew by 5,379% in the same period.



Opera users on Mini and Max in Nigeria saved approximately US\$280m in data costs in 2016.



As of June 2016, Nigeria had 16 million Facebook users, around 70% of whom are accessing Facebook via Opera Mini.



Nigeria's most used apps according to Opera Max data include WhatsApp, Facebook, Google Quick Search, Instagram and Chrome. Instagram is the most data-intensive app with Max saving 50% of user's data spend.

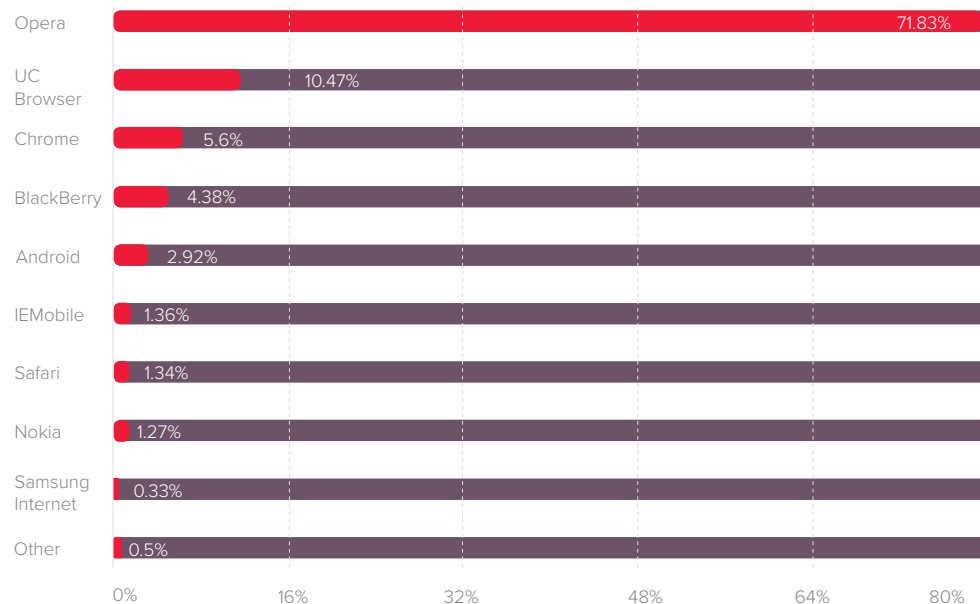


Android users make up 42% of overall Opera Mini users.

Opera's market share in Nigeria

Top 9 Mobile Browsers in Nigeria from 2015 to 2016

StatCounter Global Stats



Spotlight on South Africa



South Africa has an active online user base; 59% of active internet users go online more than once a day and 36% visit instant messaging through platforms such as WhatsApp, Facebook Messenger and BBM¹⁴.



Opera users on Mini and Max in South Africa saved approximately US\$111m in data costs in 2016.



South Africa's most used apps according to Opera Max data include Chrome, Facebook, Truecaller, OLX, Skype and News24. Here we can see the dominance of e-commerce and news websites in South Africa.

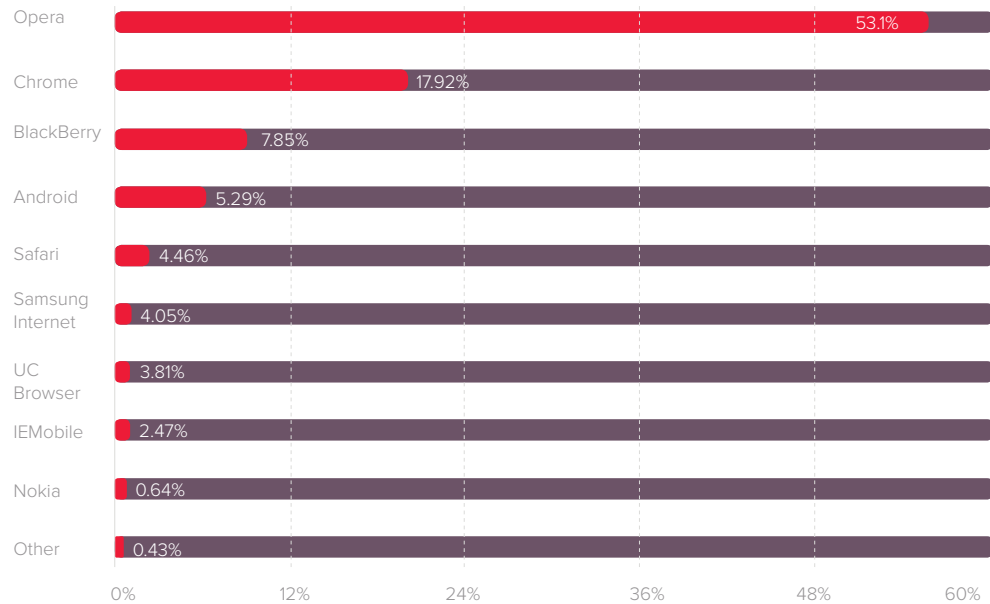


Android users make up 58% of overall Opera Mini users.

Opera's market share in South Africa

Top 9 Mobile Browsers in South Africa from Sept 2015 to Sept 2016

StatCounter Global Stats



¹⁴ Twinpine '2016 Nigeria Mobile Trend report'

¹⁵ Internet Live Stats, 2016

¹⁶ We Are Social 'Digital in 2016'

Spotlight on Kenya



Kenyans are some of Opera's highest data users per person across Africa.



Opera users on Mini and Max in Kenya saved approximately US\$116m in data costs in 2016.



Android users make up 50% of overall Opera Mini users.

Opera's market share in Kenya

Top 9 Mobile Browsers in Kenya from Sept 2015 to Sept 2016

StatCounter Global Stats

