Keeping Content Local

AFPIF
23-25 August 2022
Kigali, Rwanda

Presentation by:
Salam Yamout syamout@netflix.com
AGENDA

01 About Netflix
02 Netflix Pledge
03 Local Content Beyond Streaming
04 Streaming in Africa
05 Challenges and Opportunities
220M+
Members worldwide

450M
Viewers / Profiles

100B
View hours per year
The Netflix Pledge
● **Partner2Connect pledge**
  for expanding Open Connect presence in public exchange points

● We aim and expect to achieve 80%+ of content streamed locally

Netflix Open Connect Pledges Expanded Local Access For Over 100M Internet Users
Local Content Beyond Streaming
Economic Impact Of Netflix’s Activities In Africa:

250+ Local Titles
Netflix has invested in licensed titles, co-productions & commissioned content from the Sub-Saharan Africa region

200+ Films and TV Series
From Africa available on Netflix

Capital injection & socioeconomic value
2/3 of production spend on commissioned projects in key markets (SA & Nigeria) supports sectors outside of film & TV
Partnerships & collaboration with Government + industry bodies

Cooperation on common objectives:

- **Initiatives to promote talent development** & create creative sector jobs: Realness Institute Episodic Lab in Nigeria, South Africa and Kenya & Post-production Workshops with KAP in Nigeria.

- **Build a pipeline of creative talent:** $1 Million Pan-African Creative Equity scholarships; Screenwriting scholarships for 3 African creatives to study in Italy, 6 scholarships for African animators to study at Gobelins Animation School in France.

- **Making place for co- and self-regulation** - Collaboration with NFVCB in Nigeria and FPB in South Africa.

- **Provide new voices of storytelling with a platform to shine** on the global stage - Netflix/UNESCO ‘African Folktales, Reimagined’ short film competition & Netflix/NFVF Film Fund for emerging and established filmmakers.
The building blocks of Netflix streaming

Production → Encoding → Open Connect → Streaming

High quality watching experience while sending the least amount of data
OCA Efficiencies

Power Efficient
It takes just 5.6kW to power a half rack

Cost Savings
Bring content closer to the member
Avoid paid transit or long haul connections

Small but mighty
A country’s entire Netflix library fits into about half a rack of servers
A half rack can serve 200,000 streams simultaneously

Best in-class Encoding
5 Mbps to stream one movie
200% increase in number of hours streamed with 1 Gbps over 5 years

Fault tolerance and Resiliency
Localization limits impact of incidents and eliminates single point of failure

Timing is everything
Take advantage of the off-peak hours to load content which saves time, congestion and cost

Open Connect

Power Efficient
It takes just 5.6kW to power a half rack
STREAMING IN AFRICA
## Phenomenal Growth

<table>
<thead>
<tr>
<th>OCAs*</th>
<th>2018</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak Traffic</td>
<td>-</td>
<td>X6</td>
<td>X2</td>
</tr>
<tr>
<td>Netflix POP</td>
<td>JNB</td>
<td>JNB+NBO</td>
<td>JNB+NBO + RIX</td>
</tr>
<tr>
<td>OCAs across 34 sites at 24 partners in 12 countries</td>
<td>45</td>
<td>227</td>
<td>353</td>
</tr>
<tr>
<td>OCAs across 139 sites at 84 partners in 19 countries</td>
<td></td>
<td>227</td>
<td>353</td>
</tr>
<tr>
<td>OCAs across 194 sites at 132 partners in 29 countries</td>
<td></td>
<td></td>
<td>353</td>
</tr>
<tr>
<td>Traffic Source</td>
<td>Percent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>---------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Africa</td>
<td>81%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outside Africa</td>
<td>19%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
% Traffic Served from Africa

25% - 50%
Morocco, Egypt, Nigeria, Burkina Faso, Capa Verde, Cameroon, Ethiopia, Gabon, Ghana, Reunion,

51 - 74%
Congo, Cote d'Ivoire, Gabon, Ghana, Senegal

75% - 89%
Angola, DRC

> 90%
South Africa, Kenya, Mauritius Botswana, Namibia, Uganda, Madagascar, Mozambique, Rwanda, Tanzania, Zimbabwe
Africa Sources of Traffic

openconnect.netflix.com/en/peering/#locations

Africa Points of Presence

South Africa
- NAPAfrica Johannesburg
- JINX
- CINX (RIX)
- DINX (RIX)

Kenya
- KIXP Nairobi

DRC (RIX Coming Soon)
- Kinshasa

Private Peering
- Africa Data Centres, Nairobi NBO1
- Teraco Johannesburg Campus, ZA
Challenges & Opportunities
Opportunities - Routerless IX (RIX)

- IXP needs to inform the participants that they need to Opt-in in order to receive Netflix service by using the BGP Community 40027:40000.
- The IX can neither Opt-in participants nor change this community. This is a major requirement as it will not work well otherwise.
Challenges

- **High Price of Transit***
  - **Europe:** Median $0.18 - $0.27/Mbps based on 10GE
  - **Africa:** Median $2 - $8/Mbps based on 10GE

- **Cross-Continental Networks**

- **Stringent Regulation**
  - **High Customs Fees**
  - **Complicated Import Procedures**

*Source: pricing-suite.telegeography.com (2021)*
QUESTIONS?
Thank you!

Salam Yamout

syamout@netflix.com