Vodafone Fiji ISP Experience

Presented by
Mr. Shivneet Nair
Team Leader - ICT
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Mobile Today

6,800,000,000
MOBILE CONNECTIONS

3,200,000,000
MOBILE SUBSCRIBERS

1,600,000,000
MOBILE BROADBAND CONNECTIONS

62,000,000
LTE CONNECTIONS

Mobile in 2017

9,700,000,000
MOBILE CONNECTIONS

3,900,000,000
MOBILE SUBSCRIBERS

5,100,000,000
MOBILE BROADBAND CONNECTIONS

920,000,000
LTE CONNECTIONS
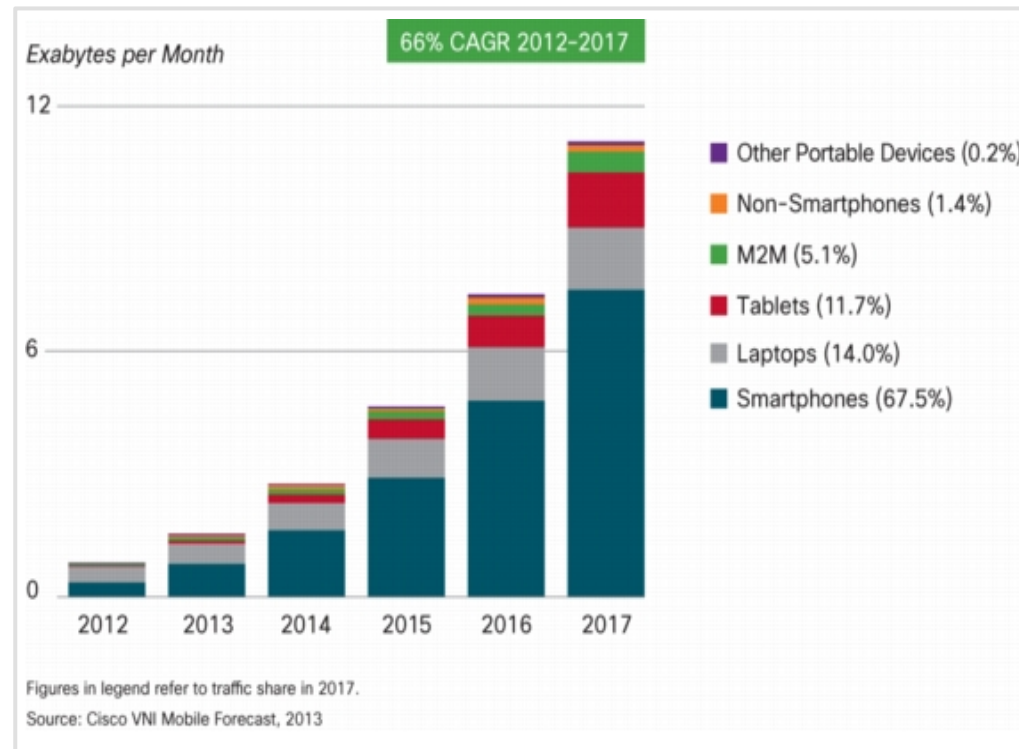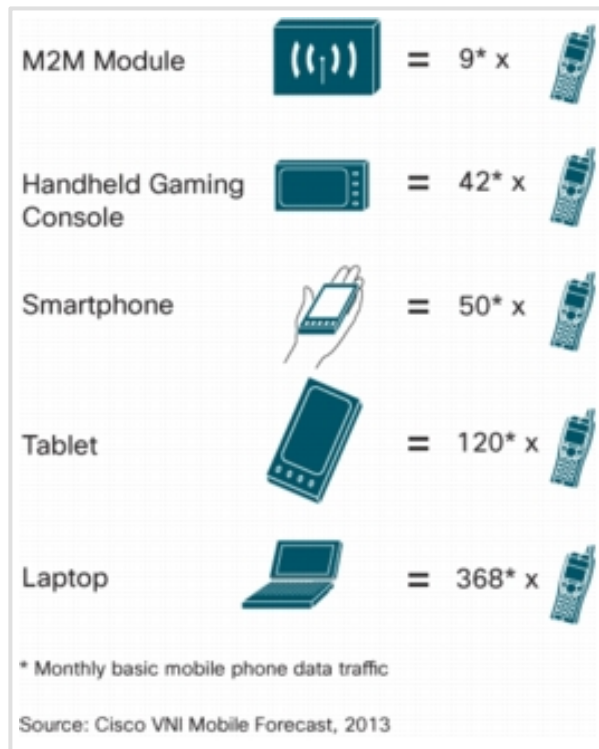
Industry around us

- **Network Landscape**

  - Last year's mobile data traffic was nearly twelve times the size of the entire global Internet in 2000.

  - Mobile network connection speeds more than doubled in 2012.

  - In 2012, a fourth-generation (4G) connection generated 19 times more traffic on average than a non-4G connection.

- **Smart Devices & Growth Trends**

  - Average smartphone usage grew 81 percent in 2012.

  - Smartphones represented only 18 percent of total global handsets in use in 2012, but represented 92 percent of total global handset traffic.
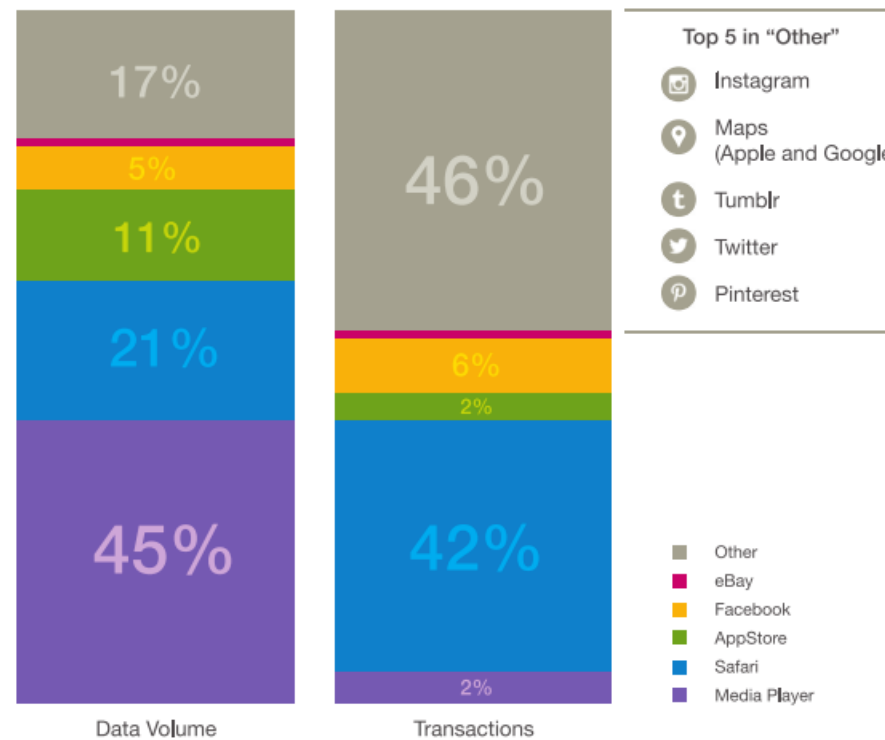

M2M Module	= 9* x
Handheld Gaming Console	= 42* x
Smartphone	= 50* x
Tablet	= 120* x
Laptop	= 368* x

* Monthly basic mobile phone data traffic

Source: Cisco VNI Mobile Forecast, 2013

Exabytes per Month

66% CAGR 2012-2017

- Other Portable Devices (0.2%)
- Non-Smartphones (1.4%)
- M2M (5.1%)
- Tablets (11.7%)
- Laptops (14.0%)
- Smartphones (67.5%)

Figures in legend refer to traffic share in 2017.

Source: Cisco VNI Mobile Forecast, 2013

Challenges
Network Design and Development
Future Plans

Challenges

- Competing with OTT providers like Google, Microsoft, Dropbox and Viber.

- Managing Internet Service Levels and the costs associate with it.

- Lack of local content in the market.

Top Mobile Data Apps

Top 5 in "Other"
- Instagram
- Maps (Apple and Google
- Tumblr
- Twitter
- Pinterest

Data Volume:
- 17%
- 5%
- 11%
- 21%
- 45%

Transactions:
- 46%
- 6%
- 2%
- 42%
- 2%

Legend:
- Other
- eBay
- Facebook
- AppStore
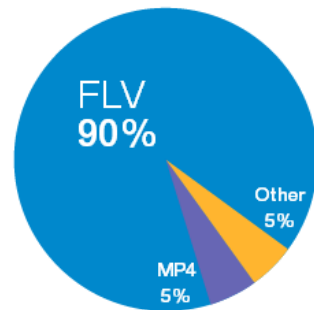- Safari
- Media Player

Data Volume   Transactions

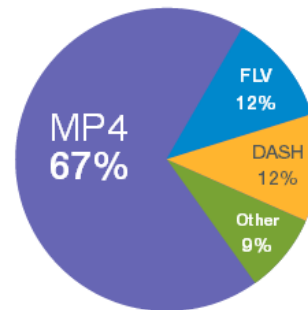# Network Design and Developments

- Rollout of All IP Backhaul Network and 3G/4G Services.

  – Implementing Traffic Engineering Solutions to efficiently use bandwidth on links.

- Partnership with OTT Providers to host their content locally so that we reduce the cost of buying Internet Bandwidth from upstream providers.

  – Partnering with CDN Providers.
  – Implementing Network Content Optimization.

Mobile Video Formats: Past and Present

2010 Global Share of Mobile Video Volume by Format

FLV 90%
Other 5%
MP4 5%

2013 Global Share of Mobile Video Volume by Format

MP4 67%
FLV 12%
DASH 12%
Other 9%

* Other incldues formats such as HLS, Smooth streaming, WebM

Future Plans

- Implement Hardware Virtualization to reduce investment on Core equipment.

  – Focus on Coverage and Content Development.

- Develop Apps to increase local content.

- Setting up IXPs to route traffic locally.

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