# What/Why/How of D2M in India
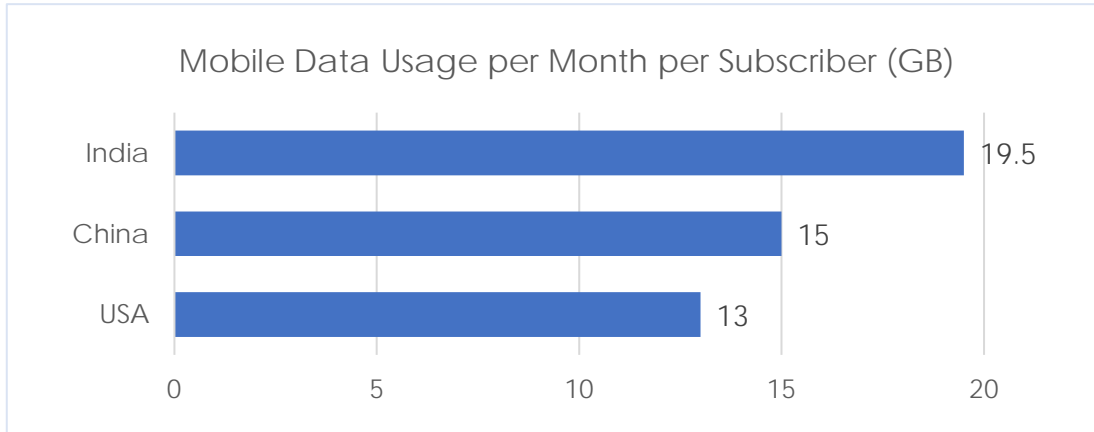
## *"Staying the course"*

*Mark A. Aitken*

President / **ONE Media 3.0**
SVP / **Sinclair Broadcast Group**

# D2M India Vision & Mission Statement

## *India Mobile Data Consumption*

Mobile Data Usage per Month per Subscriber (GB)

| Country | GB |
|---------|-----|
| India | 19.5 |
| China | 15 |
| USA | 13 |

- Total mobile data consumed in India is expected to more than double by 2024[1]

- 70% of traffic is Video traffic. Video traffic is consumed more in the rural parts than in the urban parts of the country

- Consumption is primarily restricted by mobile data price, which have been steadily increasing since late 2019

## *Mission and Vision*

**Remove the barrier** created by mobile data pricing by giving access to unlimited mobile video & data over D2M at a low price

**D2M as a Public-Private Service can enable direct broadcasting of video/data to mobile devices and other smart devices at a low cost thus widening accessibility and empowering citizens across India as envisioned by Prime Minister Narendra Modi**

# 2022 India Roadmap



**Q1**

**Q2**

**Q3**

**Q4**

## MILESTONE

- PB (Prasar Bharati) endorsement of Bangalore PoC activities
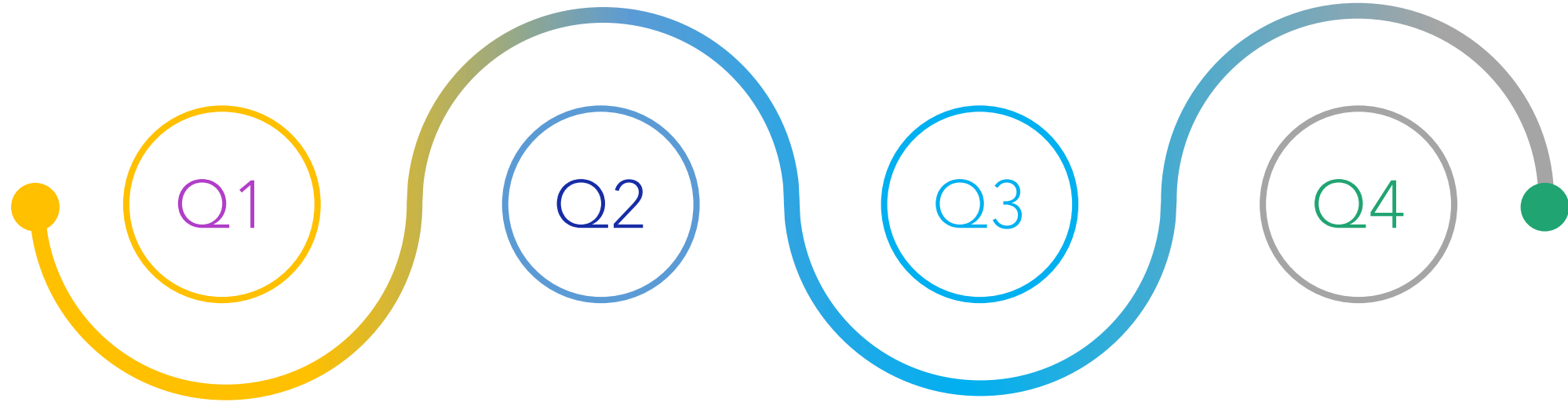
## MILESTONE

- USIBC (United States/India Business Council)

- IMC 2022 Demo

- Delhi PoC use case development work complete

- PB Ex- meets with PM (Prime Minister) to discuss D2M

## MILE

# 2023 India Projected Roadmap

Q1

Q2

Q3

Q4

## MILESTONE

- January 26th Republic Day PoC
- TSDSI / IIT-K ATSC 3.0 transposition to India D2M Standard
- MarkONE Field Trials and Report generation
- February 16th-18th 2023 BES Expo D2M Demo

## MILESTONE

- Complete PoC planning for August 15th Delhi Independence Day activity
- Formation of D2M Consortium
- DOT Spectrum Policy preservation of 526-582MHz for D2M

## MILESTONE

- Delhi Field trial
    - USOF (Universal Service Obligation Fund) public services
    - Commercial participation (TCL/Tata Play)
    - Report
- TEC (Telecommunications Engineering Center) Adoption of D2M as India National Standard

## MILESTONE

- Government approval of PPP (Public Private Partnership) formation
- IMC (India Mobile Congress) D2M Industry Engagement with MNOs and Telecom Ecosystem
    - Continuation of Delhi PoC
- 3GPP Rel 19 WIP (Work Item Plan) submission
    - US and India Core Network Interworking

# 2024 India Extended Roadmap

## Q1

**MILESTONE**

- PM Decision on D2M

## Q2

**MILESTONE**

- PPP National Deployment plan

## Q3

**MILESTONE**

- PPP Major Market Buildout

## Q4

**MILESTONE**

- Continued PPP Market Build

# What we have achieved…tremendous momentum

- Created D2M need and urgency in all major Government stakeholder departments
  - Prime Minister's Office (PM also aware)
  - Ministry of Communications (controls spectrum)
  - Ministry of Information and Broadcasting (controls Prasar Bharati)
  - Ministry of Electronics and IT
- Delhi PoC of hybrid network
- Customer pull from Tata, Hotstar, Vi and others
- Standards work : 3gpp work item and adoption of 3.0 in TSDSI
- Awareness from Qualcomm, Samsung and others
- All of this on a tight budget………

# What is the problem being addressed in India ?

- Content access for 300M feature phone users through ad backed FTA
  - Access to maps to these users through Broadcast and SMS
- Opportunistic Video offload on the lines of Wi-fi offload
  - Broadcast CDN
  - High viewership event offload
  - In stadia applications
  - OTT offload
- Alerting (will be a focus for PoC)
- Public Service utility
  - Open OTT Broadcast stack
  - Remote Education
- Automotive applications
  - Maps and FoTA

# Why India?

*Massive Scale of Indian Ecosystem*

- 210 Million TV Households

- 1150 Million Mobile Handsets

# Why India ?

- There exists a need to develop the complete Broadcast Ecosystem
  - Not possible in US alone
- "Chips in Phones" require true market momentum not possible in US alone
  - US market dominance by present 3 players (Dish not yet a factor) prohibits
  - The nature of the India market (feature phones) allows more value as an ad supported content platform
- This forces D2M integration for global channels
- Tata is a global player than can be leveraged given existing (Tejas/Saankhya) and future (DDaaS Core development) relationship