



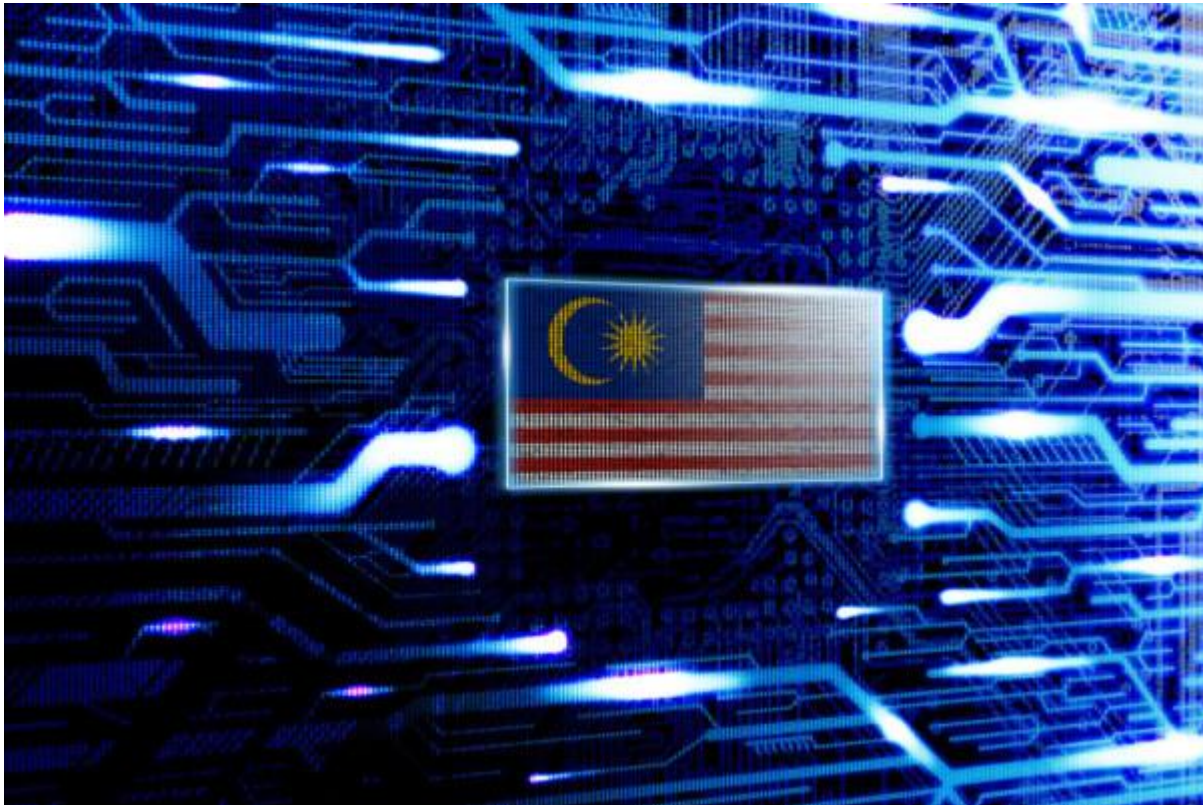
EMERGING TRENDS IN BROADCASTING

ITU – TRAI International Training Programme

10 October 2019

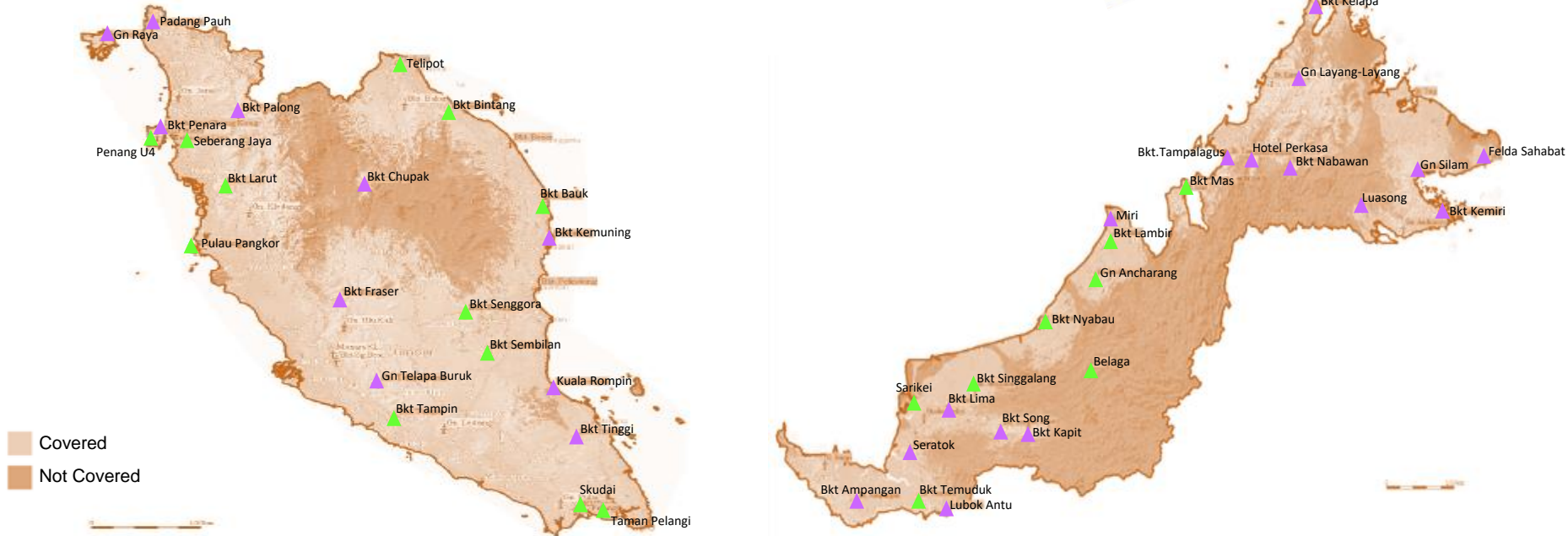
New Delhi, India

- To provide status development of Digital TV service rollout, ASO and future services post ASO
- To provide an insight on regulatory practices to enable the provision of new services to the population



- 44 DTT sites have been completed in Q1, 2019 with 95.3%** population coverage
- Satellite distribution method have been adopted to complement Digital TV coverage to 100% population coverage

44 DTT sites completed in Q1, 2019



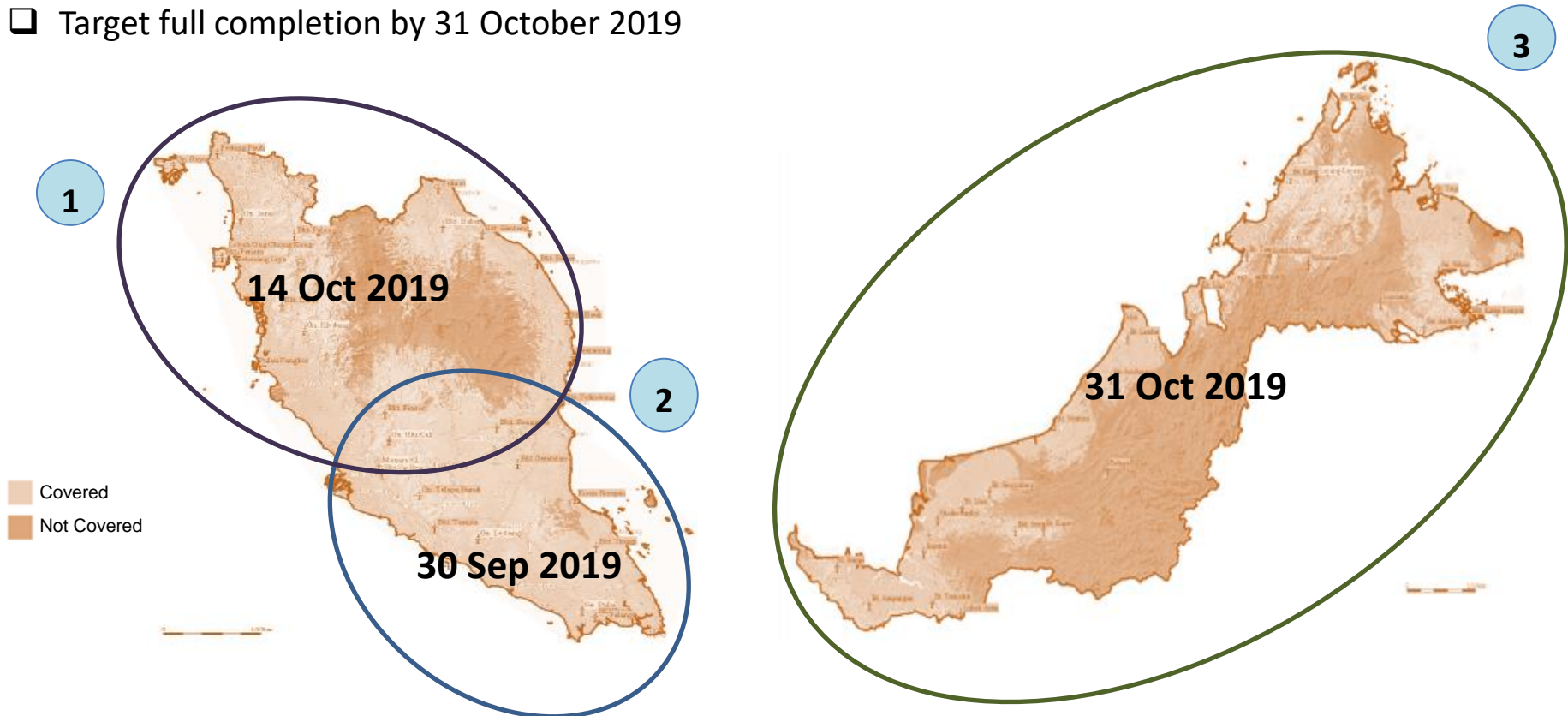
** Subject to coverage audit by MCMC

- 15 Free-To-Air (“FTA”) TV channels and 4 FTA radio channels currently aired on Digital TV platform, more are coming



ANALOGUE SWITCH OFF IS ON-GOING

- ❑ Pilot switch off in Langkawi, Kedah completed on 28 July 2019
- ❑ Central and southern regions completed on 8 October 2019
- ❑ North and East regions shall be implemented on 15 October 2019
- ❑ Target full completion by 31 October 2019



INDUSTRY FORUMS DELIBERATE TO ROLL OUT NEXT GENERATION SERVICE



The MCMC has established 4 industry forums to promote industry consultation in advocating the rollout of new services in line with relevant provisions under the **Communications and Multimedia Act 1998 (CMA 98)**

1. TECHNICAL FORUM: Malaysian Technical Standards Forum Berhad (MTSB)

- Incorporated in 8 Jun 2004
- Designated as the Technical Standards Forum by the MCMC on 27 Oct 2004, under the CMA 98 Part V, Chapter 9 – Voluntary Industry Codes, Section 94 Industry Forum and Part VII, Chapter 3 – Technical Standards, Section 184 Technical Standards Forum.

2. ACCESS FORUM: Malaysian Access Forum Berhad (MAFB)

- Incorporated in 1 April 2003
- Designated as the Access Forum by the MCMC, under the CMA 98 Part V, Chapter 9 – Voluntary Industry Codes, Section 94 Industry Forum.

INDUSTRY FORUMS DELIBERATE TO ROLL OUT OF NEXT GENERATION SERVICE



3. CONTENT FORUM: Communications and Multimedia Content Forum (CMCF)

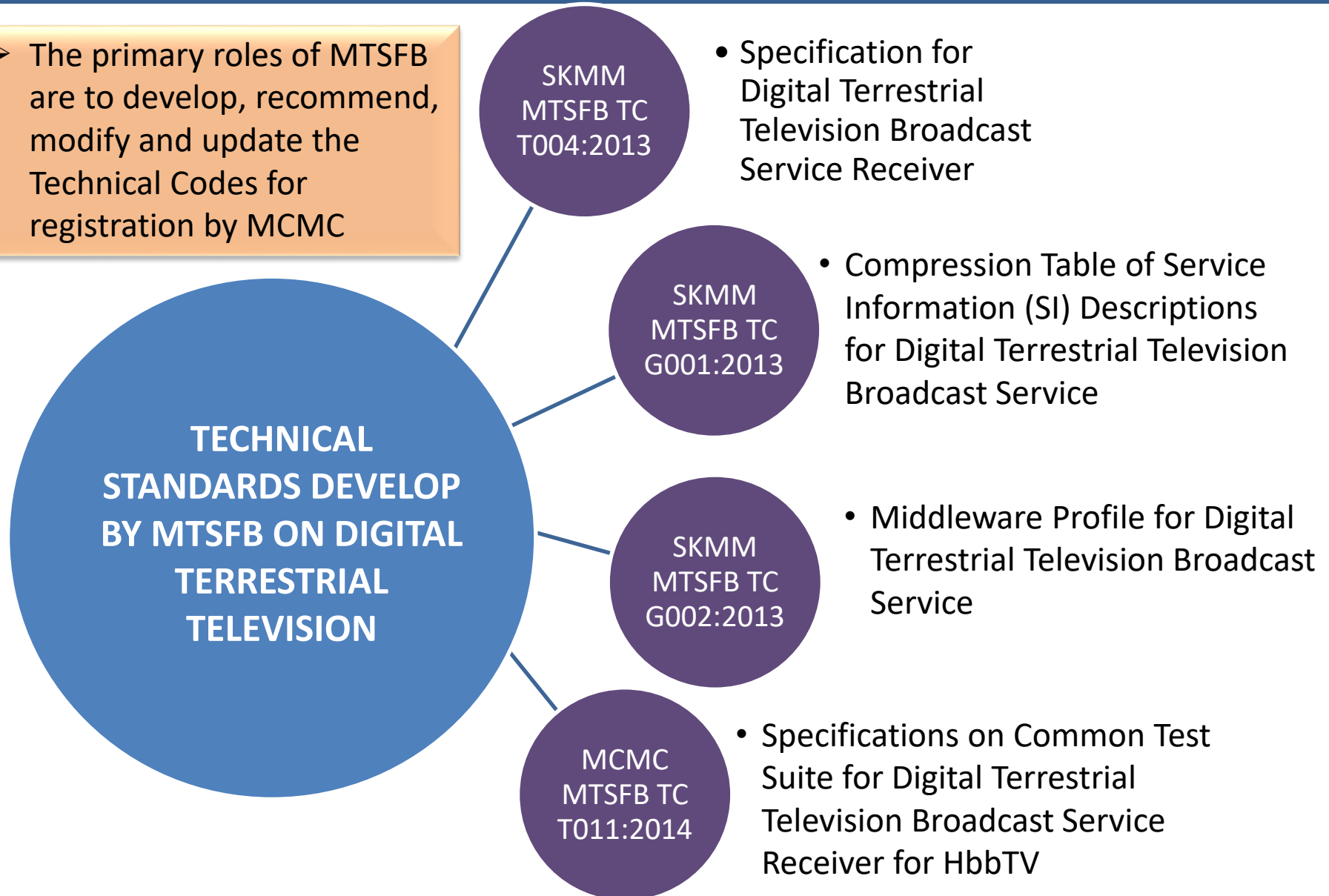
- Established in February 2001
- Designated as the Access Forum by the MCMC on 29 March 2001 , under the CMA 98 Part V, Chapter 9 – Voluntary Industry Codes, Section 94 Industry Forum.

4. CONSUMER FORUM: Communications and Multimedia Consumer Forum (CMCF)

- Established in February 2001
- Designated as the Communications and Multimedia Consumer Forum by the MCMC in 2002, under the CMA 98 Part V, Chapter 9 – Voluntary Industry Codes, Section 94 Industry Forum.

THE TECHNICAL FORUM HAS RECOMMENDED SEVERAL STANDARDS FOR ADOPTION FOR DIGITAL TV

➤ The primary roles of MTSFB are to develop, recommend, modify and update the Technical Codes for registration by MCMC



HBB TV ON DIGITAL TV (DVB-T2, MPEG-4)

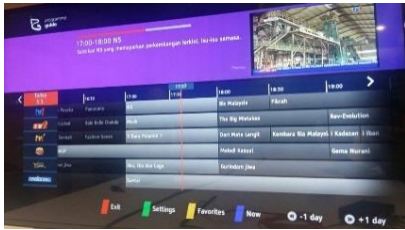
- Interactive Content on Digital Terrestrial TV
- Philosophy is not to **interrupt** current TV Program
- Offer additional information on the Broadcast and INTERACTIVE CONTENT over the Broadband platforms



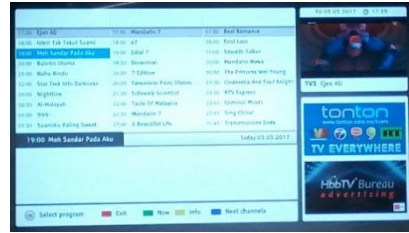
SEVERAL HBBTV APPLICATIONS HAVE BEEN ROLLED OUT



➤ Examples of HBBTV services on Digital TV platform in Malaysia are as follows:



Programme Guide



Programme Guide



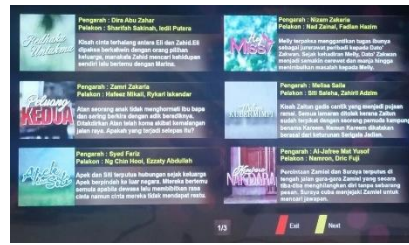
Daily prayers quotes



Daily prayers quotes



Video on demand



Synopsis



Synopsis



News updates



News updates



Weather updates



Weather updates



Social media engagement

- Upon completion of the Analogue Switch Off (ASO) in Malaysia, spectrum re-farming to enable the roll out of 5 G services have shall be executed
- Before ASO : 470MHz to 742MHz
After ASO : 470MHz to 694MHz
- 5 G Task Force have been established in 2018

Task Force Objectives

Study and recommend to the Government a holistic 5G implementation strategy with analysis from the perspectives of:



Business Case



Infrastructure



Spectrum Management & Allocation



Regulatory

- **5G demonstration projects will be conducted at 32 5G sites across six states**
Kedah, Perak, Penang, Selangor, Terengganu and Kuala Lumpur

5G Verticals and its Applications



e-Health

- Remote Consultation
- Remote Diagnosis



Factory / Manufacturing

- Smart Industry
- Robotic Arm
- 3D Printing
- Touch Drone
- Smart Manufacturing



Media & Entertainment

- Jamming Session
- VR Online Gaming
- Multi 4K TV Screens
- Hologram
- VR Football
- Holoportation
- VR 360
- VR Ping Pong



Public Safety

- Drone Monitoring
- High Resolution Surveillance
- Robotic Arm



Smart City

- Smart Home
- Smart Commute
- Digital Mapping
- Virtual Conference



Education

- Automotive Curriculum (via AR)
- VR Classroom
- Smart IoT Campus



Automotive

- Autonomous Car
- Big Data Analytics



Agriculture

- Aquaculture
- Crop Growth Monitoring and Management

Thank
you!

