

ANNUAL REPORT

2020





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COVER RATIONAL

The image of the person looking ahead into and beyond the virtual world is symbolic of a far-sighted young generation. The symbols further portray technological civilisation and ICT advances which have become our guiding principle in all initiatives we undertake. These iconic symbols, when connected, depict a forward journey fulfilling all of MCMC's vision, mission and direction for the well-being of Malaysians while holding fast to our principles of transparency, accountability and responsibility. The colour blue signifies our honesty and transparency in ensuring governance, social empowerment and monitoring of the communications and multimedia industry is maintained and respected.



Visual of the Annual Report 2020

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**MCMC
AT A
GLANCE**



01

AT A GLANCE



BROADBAND

"In 2020, MCMC replaced the publication "Broadband Penetration Rate Per 100 Residents" to "Fixed Broadband Penetration Rate Per 100 Premises" and "Mobile Broadband Penetration Rate Per 100 Residents"

42.2 million
Broadband subscription

118.7%
Mobile broadband penetration rate per 100 residents

37.2 %
Fixed broadband penetration rate per 100 premises

3.3 million
Fixed broadband subscription

38.3 million
Mobile broadband subscription

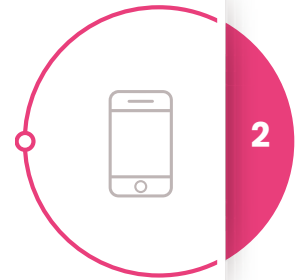
MOBILE CELLULAR

43.7 million
Mobile cellular subscription

133.6 %
Mobile cellular penetration rate per 100 residents

13.6 million
Post-paid subscription

30.2 million
Prepaid subscription



FIXED LANDLINE TELEPHONE

7.5 million
Fixed landline telephone subscription

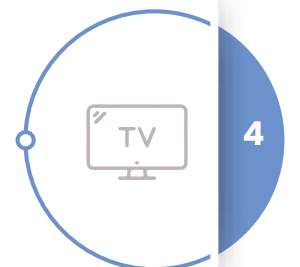
22.8 %
Fixed landline telephone penetration rate per 100 residents



PAID TV

7.3 million
Paid TV subscription

89.0 %
Mobile cellular penetration rate per 100 residents



Percentage of Household Television Access by State

State	2019	2020
	%	
Johor	98.7	99.7
Kedah	98.3	99.1
Kelantan	95.7	98.2
Malacca	97.8	99.0
Negeri Sembilan	98.7	99.2
Pahang	97.8	98.1
Perak	96.7	99.0
Perlis	96.9	96.5
Penang	97.0	99.0
Sabah	95.2	95.4
Sarawak	95.3	96.2
Selangor	98.5	98.9
Terengganu	98.9	98.9
F.T. Kuala Lumpur	99.6	99.9
F.T. Labuan	97.9	98.2
F.T. Putrajaya	98.7	99.5
Malaysia	97.6	98.5

Source:

a) Department of Statistics Malaysia - Survey Report on ICT Usage and Access by Individuals and Households, Malaysia, 2019

b) Department of Statistics Malaysia - Survey Report on ICT Usage and Access by Individuals and Households, Malaysia, 2020

Number of Digital Signature Certificates Issued by Type

Year	Quarter	Domestic Holders			International Holders	Total
		Individual	Organisation		Government & Corporate	
			Corporate	Government		
2019	4	43.4	456.7	13,310.1	1.2	13,811.4
2020	1	46.4	473.9	13,673.2	1.2	14,194.7
	2	48.2	493.5	14,568.9	1.2	15,111.8
	3	53.4	516.3	14,819.6	1.2	15,390.5
	4	53.4	533.5	14,898.1	1.2	15,486.2

Source: Department of Statistics and Data Intelligence, MCMC

VISION

Establishing a communications and multimedia industry that is competitive, efficient and increasingly self-regulating, generating growth to meet the economic and social needs of Malaysia.

MISSION

We are committed to:

- Promoting access to communications and multimedia services;
- Ensuring consumers enjoy choice and a satisfactory level of services at affordable prices;
- Providing transparent regulatory processes to facilitate fair competition and efficiency in the industry;
- Ensuring best use of spectrum and number resources; and
- Consulting regularly with consumers and service providers and facilitating industry collaboration.

MCMC's two (2) primary functions are, to regulate and to develop industrial fields as stipulated under the relevant acts. The regulatory function is closely linked to the establishment and enforcement of laws that ensure fair, transparent and dynamic governance. Its function as a development agent is to provide the critical elements to ensure that the people, the Government and the industry remain viable in the face of current competition and achieve future aspirations. The construction of critical elements such as high-performance infrastructure and sustainable human capital capabilities will boost Malaysia's aspiration of becoming a high-income nation based on digital technology innovation.



ABOUT MCMC



02

**YB Dato'
Saifuddin Abdullah**

*Minister of Communications
and Multimedia Malaysia*



MINISTER'S FOREWORD

ASSALAMUALAIKUM AND SALAM SEJAHTERA

I would like to congratulate the Malaysian Communications and Multimedia Commission (MCMC) for having published a comprehensive and detailed 2020 Annual Report for our reference. In 2020, MCMC has successfully implemented its planned initiatives. This is testament of the commitment and dedication of all MCMC staff to achieve the aspirations of the ministry and the country.

Faced with the COVID-19 pandemic, the year 2020 began with a big challenge. The important lesson that we have gained through this experience is the awareness that technology is undoubtedly far more important than what we imagined. Technology is the lifeline for a society faced with difficulties and isolation. Technology has also made it possible for the government to dispatch assistance to the people. It is undeniable that technology is one of the main pillars of the country's advancement.

MCMC is responsible for regulating the communications and multimedia industry that has the mandate to propel the country towards digital transformation. As such, MCMC is focused on encouraging investment into the right sectors, for example, innovative services capable of triggering change in consumers, enterprises and the nation in general, while ensuring that the digital divide is at a minimum.

We are now on the verge of the Fourth Industrial Revolution (IR 4.0) which leverages automation technology and data exchange. These include artificial intelligence (AI), robotic automation, cloud computing, Internet of Things (IoT), big data analytics and virtual reality (VR).

These technologies are changing and will continue to change our working patterns as well as our lives. Along

with the development of global digitalisation technology, we are taking steps to introduce the same in the country. Malaysia aims to be among the first ASEAN countries to launch 5G.

This will be achieved through the *Jalinan Digital Negara* Plan or JENDELA, which has since become the country's pillar with respect to digital development. I am confident that the implementation of JENDELA for the subsequent phases will be monitored proactively and consistently by MCMC, and thus will achieve its objectives in strengthening telecommunications infrastructure and 5G technology development in Malaysia.

The report by Malaysian Institute of Economic Research (MIER) on the economic impact of the implementation of 5G services in Malaysia expects the contribution of 5G technology to the national economy to increase between the years 2021 and 2025 aside from boosting innovation and opening doors for new opportunities in various sectors including healthcare, media and entertainment, smart cities, automotive, manufacturing, public safety, agriculture and education.

Additionally, the role of MCMC in combatting the spread of fake information or fake news is significant, and even more so while the country is striving to navigate through the COVID-19 pandemic. The responsibility shouldered by the Commission has been carried out judiciously through the *Sebenarnya.my* portal which offers up authentic information about the COVID-19 pandemic, while at the same time, rebuts widespread fake news on the Internet. This effort must continue to maintain public order at all times.

Congratulations to MCMC, through the "Klik Dengan Bijak™" initiative for being hailed project champion for Category 17: Ethical Dimensions of the Information Society by the World Summit on the Information Society (WSIS) - WSIS Prizes 2020 organised by the International Telecommunication Union (ITU) in Geneva. This recognition by WSIS is very meaningful, and I hope this distinction will empower Malaysians into becoming excellent and highly self-disciplined

digital citizens. To conclude, I would like to express my gratitude to MCMC for its cooperation with the Ministry and the Government to ensure the country's digital transformation efforts are carried out smoothly in 2020 as well as in the years to come.

THANK YOU

CHAIRMAN'S MESSAGE

BISMILLAHIRRAHMANIRRAHIM

ASSALAMUALAIKUM WARAHMATULLAHI WABARAKATUH AND SALAM SEJAHTERA

My gratitude to Allah SWT for it is with Allah's will and grace, that the staff of the Malaysian Communications and Multimedia Commission (MCMC) and I have been able to continue to render our services throughout the year 2020 in our efforts to ensure that Malaysians continue to enjoy the best communication, broadcasting, postal and courier services. Despite it being a year riddled with challenges, we are in the forefront of sustainable digital development.

The bitter challenges posed by COVID-19 have changed the landscape of life around the world and have created new norms, placing MCMC in the lead to realign the continuity of life of the people as well as the resiliency of the country's economy through communications system integrity, information delivery, delivery of goods and eradication of fake news.

Despite the challenges, MCMC staff have made significant effort to ensure the Annual Report for the year 2020 would be available at the end of the first quarter of 2021. This is a leap towards a more efficient and sustainable administration level. In previous years, the annual reports were only made available in the fourth quarter of the following year.

As an industry regulator of critical services such as telecommunications, postal and courier, broadcasting and internet, MCMC is swift to adapt the best strategies to face the abrupt changes taking place. The concept of normal work or business as usual was no longer applicable throughout 2020.

MCMC has partnered with government agencies as well as major communications service providers in forming a comprehensive action plan to meet the new requirements of the people, following the increase in demand in telecommunications services under MCMC's regulation.

The action plan known as the *Jalinan Digital Negara*, JENDELA is a launchpad for a comprehensive, high quality broadband service coverage. It is important in bridging the digital gap as well as preparing the country for a steady transition into 5G technology. JENDELA is a holistic plan that supports the primary aim of expanding good quality telecommunications coverage experience, extensively to the people. As of December 2020, high-speed broadband fixed line connections availability had exceeded its 2020 target. Plans to build more fibre optics and new towers as well as making improvements to existing towers will be continued intensely, expanding broadband network coverage and improving the quality

of experience for the community, especially for those in the rural areas. Through close cooperation with service providers, MCMC has taken proactive steps to monitor the actions or initiatives that have been taken up so that there will be no constraints in the implementation according to the respective targets.

The implementation of JENDELA will also see the termination of 3G services by the end of 2021 in order to strengthen 4G coverage performance. The purpose of 3G termination by the end of 2021 is to allow 3G spectrum to be refarmed and repurposed to optimise 4G network for better mobile data experience.

The 5G technology is a game changer as it will create more smart services which will have a direct impact on the well-being of the people. Not only promising faster Internet access, 5G more importantly, has the potential to create a variety of ground-breaking opportunities such as the development of new products and services or even new business models. These advancements will only materialise through efficient applications brought by 5G. Efforts to provide a 5G network can undoubtedly be accelerated as a result of positive efforts by service providers.

The introduction of 5G is also in line with the awareness at policy level on the importance of speedy implementation of digital transition that would place the country in a leadership position of digital economy and the Fourth Industrial Revolution (IR 4.0). This transition requires transformation at various levels and sectors including the government, businesses and the public in general. The government has also recognised the Internet as a 'third utility', as an appropriate step moving forward. Its recognition is an important benchmark in accelerating and strengthening the country's digital infrastructure.

The digital transformation also involves the postal and courier sectors, the backbone of e-commerce activities. In fortifying these sectors, MCMC is holding back on the issuance of new courier licenses for two (2) years starting 14 September 2020 and has held a transformation

laboratory with stakeholders in this sector to boost the industry and strengthen its services for the public. MCMC has also devised several strategic action plans to be implemented through the National Courier Accelerator Plan (PAKEJ) initiative. This will be at the core of e-commerce activities and the development of digital economy which continues to face various new challenges triggered by the technological boom resulting in the merger of the logistics sector, the e-commerce platforms, e-hailing and the financial transaction systems.

The 873 *Pusat Internet Komuniti* (PIK) nationwide have continued to play its role in community transformation. By 2020, the PIK had undergone a re-branding of its functions and management structure, streamlined into a concept; a digital centre whereby people in the community can come to learn and utilise the services available, as well as to explore the wealth of opportunities in the digital world. In addition to enhancing the content and learning services, the use of PIK will also be optimised in the form of digital hall, which will act as a centre for entrepreneurs to gain more knowledge on packaging and marketing of products. Community involvement in the national digital agenda is essential in creating a balanced ecosystem providing prosperity for people from all walks of life.

The year 2020 demonstrated MCMC's steadfast commitment with other industry players to alleviate the burden of the people in the midst of the COVID-19 pandemic. The telecommunications industry had provided special packages including the provision of 1GB of free data per day to all customers. The courier industry also presented special rates realising that people were increasingly relying on e-commerce and other deliveries to survive.

It should be noted that while the country and the world struggled to navigate through the pandemic, the country was also faced with the rampant spread of fake news and inaccurate information which MCMC had to continuously curb to avoid causing chaos and severe economic losses. Statements and warnings were issued consistently. Enforcement was carried out together with other authorities, especially the Royal Malaysia Police (PDRM). The *Sebenarnya.my* portal plays an important role as a medium which allows the public to verify news received. As the tagline "*Tidak Pasti, Jangan Kongsi*" suggests, it also serves as a reminder for the people not to share unverified information. Efforts to raise awareness were further implemented through the campaign, 'Freedom of Speech but Not Freedom to Lie'.

The initiatives introduced by MCMC throughout 2020 have been a reflection of MCMC's determination and commitment to ensure the country's population is not left behind in enjoying good digital services. The coming years will be more challenging and will require a more intelligent and quicker execution of all actions in order not to be left behind.

Therefore, I take this opportunity to invite all parties, especially my team at MCMC to mobilise efforts towards building a successful digital nation and society. Let us together serve as employees filled with integrity and knowledge, and become dynamic members of the community.



Dr. Fadhlullah Suhaimi Abdul Malek

*Chairman
Malaysian Communications
and Multimedia Commission*

COMMISSION MEMBERS



1

**YBRS. MR. CHEW
LIONG KIM**

2

**YBRS. DR. ZAIDI
RAZAK**

3

**YBHG. DATUK
ZAINAL ABIDIN
ABU HASSAN**

4

**YBRS. DR.
FADHLULLAH SUHAIMI
ABDUL MALEK**



5

**YBHG. DATO' SRI
HAJI MOHAMMAD
MENTEK**

6

**YBHG. TAN SRI
DATUK DR. ABDUL
SAMAD HAJI ALIAS**

7

**YBHG. DATUK SERI
TAJUDDIN ATAN**

8

**YBRS. PROF. DR.
THAREK
ABD RAHMAN**

ENVIRONMENT, SOCIAL AND GOVERNANCE ASPIRATIONS

As an organisation with high public accountability, MCMC is committed to accomplishing the principles and values that come under the management concept of the Environment, Social and Governance (ESG).

The ESG concept emphasises balance between progress and harmony in each initiative implemented by an organisation. It cherishes future harmony more than current pressures, which can threaten environmental sustainability, social structure or the integrity of governance.

The rapid growth of digital technology over the past half century has been a major catalyst for ESG aspirations and is closely related to the role of MCMC. Other than providing a regulatory framework for various industries in the digital ecosystem, MCMC also plays a strategic role in order for the country to continuously steer the currents of change and ensure that the people enjoy the benefits of prosperity that come along. This can be achieved by leveraging on the ESG principles to attain a balanced future.

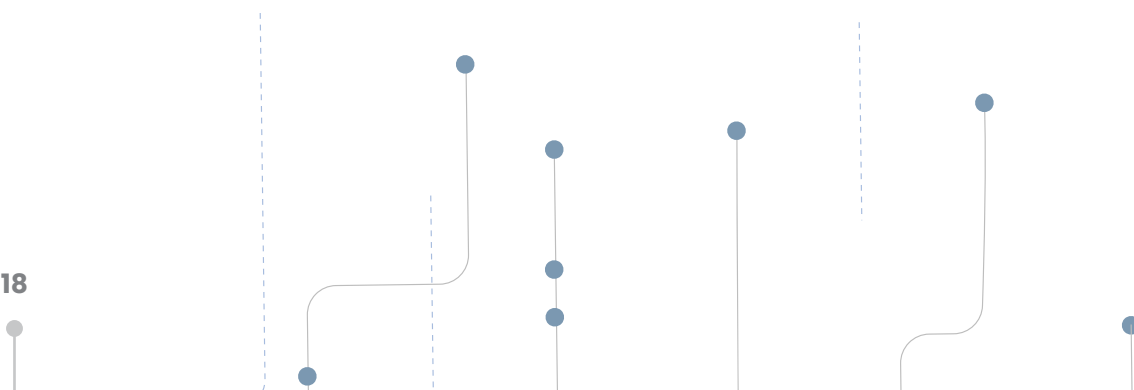
A protected environment is the first ESG core and by advocating digital services, it undeniably reduces carbon footprint. A prime example would be the use of digital applications which reduce paper usage, thus resulting in fuel savings and lower carbon emissions. The development of a digital infrastructure aims to activate all applications that contribute towards the preservation of a protected environment. Hence, such infrastructure needs to be extensively planned by MCMC.

The use of various smart devices to communicate, socialise, study and work is now common among all societies. Awareness about environmental sustainability has driven MCMC to get involved in the efforts to prevent contamination from the disposal of electronic devices. To curb irresponsible disposal of used devices from polluting the environment, and to encourage recycling activities, MCMC, in 2015, had established and started the Mobile e-Waste programme.

The collection pattern of the Mobile e-Waste programme has shown favourable rates over the past five (5) years. Even with the COVID-19 pandemic, the total accumulated collection has increased by 448.36 kilograms to 4,849.4 kilograms in 2020, compared to the total accumulated collection of 4,401.06 kilograms in 2019. Overall, mobile phone accessories and other devices were recorded as the highest percentage followed by regular phones, smartphones and camera phones.

The Mobile e-Waste programme now has 44 active collaboration partners with more than 150 collection boxes across Peninsular Malaysia, Sabah and Sarawak. These collaboration partners include those from various industries, retailers, media agencies, government agencies and NGOs, as well as schools and universities. The Mobile e-Waste collection boxes are also placed at the *Pusat Internet Komuniti (PIK)* nationwide to facilitate collection by the locals.

In addition, MCMC also takes notice of radiation issues that are often raised by residents who are concerned about the construction of telecommunication structures near their residences, which they claim can have an impact on their health. Awareness programmes have been conducted in collaboration with other agencies such as the Nuclear Agency Malaysia (ANM) and the Ministry of Health (MOH) to explain that telecommunication frequencies are non-ionising and do not alter the human cell structure or affect human health. Malaysia uses the standard Electromagnetic Field (EMF), prescribed by the international regulatory body i.e., International Commission on Non-Ionizing Radiation Protection (ICNIRP). Field tests carried out in areas from which complaints were received indicated that the EMF level measured was far below the level approved by ICNIRP. Ongoing studies are conducted with several local



universities in relation to the EMF radiation issues and the results from these studies could not prove that there are any negative side-effects on human health. MCMC has also created a custom page, <http://rfemf.mcmc.gov.my> to provide information on the latest EMF-related studies and features from around the world.

The awareness on the need to care for the environment is also applied towards the construction of MCMC's headquarters in Cyberjaya. The Green Building Index Sdn Bhd has recognised the building's "green features" as having achieved the "Gold" standard.



The "green features" of the MCMC headquarters include:

- Use of heat-reflecting glass on the exterior walls which reduces energy requirement for air conditioning and provides natural lighting inside the building;
- The concept of an open workspace that does not obstruct light and reduces the need for lighting during the day;
- Use of energy-saving lamps equipped with sensors to control brightness as needed;
- Installation of solar panels on the roofs of the buildings capable of generating electricity up to 60 kilowatts per hour;
- Installation of wind turbines capable of generating electricity up to 5 kilowatts per hour;
- Green rooftop gardens that help lower the temperature of the building;
- Use of recyclable materials for all furniture manufactured by domestic suppliers;
- Use of environmentally-friendly paint and adhesive to maintain indoor air quality; and
- Installation of a water recycling system from sinks and air conditioning units. Some of the recycled water is channelled into the fish pond by the main entrance.

Two (2) other thrusts in ESG, namely Social Empowerment and Governance will be explained in the next segment of this Annual Report.

The social aspect was one that witnessed the most impact from the COVID-19 pandemic throughout 2020. Movement Control Order and Standard Operating Procedures (SOPs) and Standard Operating Procedures (SOPs) that were enforced, including mandatory wearing of face masks in public spaces had created new social norms. Concerned with the decline of income among small industries, MCMC had extended a contract to supply MCMC official face masks to these

small entrepreneurs assisted by the Rural Entrepreneur Development Division, Ministry of Rural Development. The contract to supply 5,000 fabric face mask compliant to the standards outlined by the World Health Organisation (WHO), and with the MCMC logo on them, was awarded through GIATMARA. The order was fulfilled within a month and a half, and the face masks were promptly distributed to all MCMC staff.

PERFORMANCE REVIEW

MCMC was not exempted from the shockwaves felt around the world throughout 2020 as a result of the COVID-19 pandemic. Movement Control Order (MCO) initiated on 18 March 2020 not only placed pressure on the operations and distribution of human resources at MCMC, but also changed the landscape of telecommunications and digital services.

The demand for broadband and courier services under MCMC's regulation had changed and increased sharply as people were forced to adapt to the new norms.

Internet traffic had increased between 30% and 70% and data usage patterns shifted overnight from commercial areas to residential areas. This shift had resulted in Internet speeds being reduced by up to 40% and the number of complaints about telecommunications service shortcomings increased by up to 70%. This prompted MCMC and telcos to act quickly to shift and improve coverage.

The National Digital Network or *Jalinan Digital Negara (JENDELA)* was produced as a plan to accelerate the development of digital infrastructure more aggressively and comprehensively. Resulting from a month-long discussion from 13 July to 14 August 2020 in the National Digital Infrastructure Laboratory (NDIL) with government parties, industry players and all stakeholders, JENDELA sets the aspirations to provide inclusive broadband services to all, including those in remote areas. JENDELA, strongly supported within the industry, was hailed as the forward plan to strengthen the digital infrastructure. It is to be the foundation to the development of digital economy, the Fourth Industrial Revolution (IR4.0) and the introduction of 5G commercially.

The courier services sector too was impacted by the new norm as a result of the COVID-19 pandemic which saw a surge of sales on the e-commerce platform. The total number of goods delivered in the second quarter of 2020 alone increased to 100 million packages. This load caused service quality to sharply decline and saw the average delivery period increase from 2.1 days to 4.6 days. Complaints about poor service, late delivery and loss of goods increased significantly. More surprisingly, the profit figures for these courier companies dropped despite the increase in number of shipments. This distressing situation had prompted MCMC to freeze the issuance of new courier licenses for two (2) years starting 14 September 2020.

The National Postal and Courier Industry Laboratory (NPCIL) organised by MCMC for eight (8) weeks at the

end of 2020, with the industry and related government agencies was aimed at improving courier services and create first class service for Malaysian consumers. The outcome of the lab was in the form of the National Courier Accelerator Plan (PAKEJ), which will be put in place for implementation starting 2021 based on the industry's 4R goals: Reliability, Reachability, Relevancy and Resiliency.

Fake news was also a big challenge in the midst of the COVID-19 pandemic and the MCO. The unethical use of social media platforms, the sharing of unverified information facilitated the quick spread of sensationalised information, triggering panic and disharmony. As many as 278 investigations on fake news related to COVID-19 were opened throughout 2020. Besides awareness campaigns and enforcement, MCMC had advocated the use of the *Sebenarnya.my* portal to facilitate the verification of news by the public before it could spread widely among online netizens. *Sebenarnya.my* cooperates with all government agencies and government-linked companies (GLCs) to provide immediate feedback on news reviews.

MCMC also placed focus on community capacity building and ensuring the development of digital aspirations benefit everyone in society. A total of 873 *Pusat Internet Komuniti (PIK)* were established in housing projects and rural housing areas to provide ICT-related access and training. Managed by two (2) full-time employees, PIK facilities enable people in the community to surf the Internet at a low cost and gain



more exposure as well as training, particularly ones related to e-commerce marketing techniques which can help local product sales. In 2020 the PIK underwent a transformation in terms of branding and roles. PIK now plays a more active role in promoting e-commerce activities within the community with part of them working in collaboration as courier service agents.

The National Digital ID (NDID) is another endeavour driven by MCMC towards building a digital community that will play an active role in national development. In general, NDID is one form of digital identification and self-authentication using biometric features to enable users to accomplish a variety of business affairs and transactions. In the year 2020, MCMC had completed the NDID Framework Review for government approval prior to implementation by relevant agencies. The NDID Framework Study also involved the process of Public Consultation attended by 67 government agencies, 156 private companies and over 35,000 members of the public, who in general supported the implementation of this method.

Future planning is crucial to enhance Malaysia's capacity as a digital investment hub. Among the plans being refined is the effort to upgrade the submarine cable connection which will, in turn, transform Malaysia into an optical network hub. Other initiatives include establishing strategic partnerships with influential digital companies to create hyper-scale big data centres and develop advanced cloud information systems. All these plans will be presented in greater detail next year.

All regulatory and development aspects described will be further strengthened in the year 2021 to guarantee the well-being of the people and to revive the economic competitiveness of Malaysia.





GOVERNANCE

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03

GOVERNANCE

INTRODUCTION

The aspects of efficient governance, high integrity and foresightedness are at the core of the establishment of MCMC as a regulatory body to several strategic industries such as telecommunications, broadcasting, postal and courier, digital signatures and online activities. Good governance can ensure the steady growth of these industries in compliance with the policies set by the government.



Governance includes the preparation of development plans, spectrum asset management as well as appropriate regulations to drive industry players to achieve the desired goals besides protecting consumer interests. To achieve these goals, MCMC has always practiced an open policy, taking into account the views of various parties including the industry in making fair and realistic decisions. This openness is self-evident during the process of designing the national strategic initiatives such as the *Jalinan Digital Negara* (JENDELA), National Courier Accelerator Plan (PAKEJ) and the National Digital Identity (NDID) Framework. The views of other agencies, industries and the public were considered through the laboratory evaluation process and public consultation.

Other than mobilising development aspirations, the method of governance implemented by MCMC has recognised the interests of consumers as high priority. Practices affecting consumer rights are dealt with strictly in accordance with the rules provision and the role of the enforcement under the Communications and Multimedia Act 1998 (CMA 1998). MCMC also plays an important role as a specialist agency in assisting other authorities to prevent and deal with cybercrimes to protect the people.

MCMC remains committed to streamlining the aspects of governance to achieve the Mission and Vision set out under the CMA 1998 and the Malaysian Communications and Multimedia Commission Act 1998 (MCMCA 1998). This unwavering determination is often given recognition when MCMC's dealings as a regulatory body become the reference for other countries in the region and around the world.

MCMC A STEP FORWARD

The year 2020 began in full swing when the Malaysian Communications and Multimedia Commission (MCMC), in collaboration with telecommunications service providers, organised a large-scale launching of the 5G Demonstration Project (5GDP) in Pulau Langkawi, Kedah. Inaugurated on 19 January 2020 at the Langkawi International Convention Centre, 5GDP reflects the Government's commitment and determination to transform the telecommunications industry to compete on the global stage in fifth generation technology or 5G.

5GDP not only aims to facilitate, build and nurture the developmental growth of the 5G ecosystem in the country, but also to spark awareness and stimulate the demand for the use of 5G in various sectors.

A total of 35 use cases involving six (6) verticals in 25 locations, were demonstrated in Langkawi from October 2019 to March 2020, by volume investment of RM101 million. The number of such use cases was reportedly half of the 71 use cases shown in six (6) states in Malaysia. Among the use cases in focus were smart agriculture, smart airports, virtual tourism, smart traffic light solutions, real-time medical data transfer, 5G live video monitoring and remote consulting with MEDCOM, telemedicine devices used in Operating Rooms.

MCMC also hosted, for the very first time, the 5G Malaysia International Conference for two (2) days from 20-21 January 2020, where a variety of topics were discussed extensively, which included the Global 5G Plan, 5G global socio-economic prospects and Malaysia's 5G. At the conference, the National 5G Task Force also handed its final report, "National 5G Task Force Report - 5G Key Challenges and 5G Nationwide Implementation Plan", which outlined the 5G implementation prerequisites such as spectrum management solutions, analysis of safety and health aspects, as well as recommendations on new regulations and infrastructure-sharing mechanisms.

5G commercialisation was undoubtedly the main direction and focus of MCMC at the time, followed by the implementation of the National Fibre Optic and Connectivity Plan (NFCP). NFCP is a five (5) year plan (2019-2023) which aims to provide robust, pervasive, high quality and affordable digital connectivity for the well being of the people as well as to provide a conducive environment for the adoption of new technologies such as 5G.

The NFCP, which was announced on 28 August 2019,

involved a total cost of RM21.6 billion which will provide a balanced emphasis to Internet access between urban and rural residents in an effort to reduce the digital divide. Having fibre optic cables across the country is not the only component in the construction of a telecommunication network.

MCMC constantly interacts with all licence holders to guide them hence to minimise the overlapping investment which could be unprofitable to the companies and the country. At the beginning of 2020, six (6) NFCP initiatives, namely NFCP 1-6, were identified for implementation involving a cost of between RM2.5 billion to RM3 billion.

The NFCP 1 project amounted RM290 million began in February 2020 aims to provide public cellular services at 152 sites in 93 township across the country. In line with the concept of Shared Prosperity which aims to give equal benefits, the project covered eight (8) states in Malaysia namely, Johor, Kedah, Kelantan, Negeri Sembilan, Pahang, Perak, Terengganu and Sabah and is expected to bring benefits to approximately 40,000 residents in the areas involved.

NFCP 2, NFCP 3, NFCP 4 and NFCP 6 projects have been re-evaluated as a result of the COVID-19 pandemic stress while NFCP 5 was awarded under Clawback scheme on 15 March 2020.

The COVID-19 pandemic had impacted global economies, forcing nations around the world to grapple with social and economic challenges, and Malaysia was no exception in this case. During these challenging times, it was crucial to enhance Malaysia's development towards digitalisation and renewing resolutions to achieve transformation through the involvement of citizens, improvements through the Government delivery system as well as technology transitions in the industrial

sector. MCMC is committed in adapting the impact of the COVID-19 pandemic by reviewing the policies and terms of references.

MCMC has played a significant role in the Government's effort to control the transmission of COVID-19 at national level. Working hand in hand with the Ministry of Health (MOH) and the National Security Council (NSC), MCMC has dealt with matters involving SOP formations as well as the prevention of the spreading of fake news about COVID-19 which could cause disharmony and panic in the communities. MCMC also cooperated with the Royal Malaysian Police (PDRM) in the production of the *Gerak Malaysia* application, tracking detailed movement records as well as enabling PDRM to manage state cross-border travel permits. To this end, PDRM and MCMC had successfully managed traffic movement during the first phase of the MCO. The use of *Gerak Malaysia* was later terminated on 31 July 2020.

MCMC was also instrumental in mobilising the *MySejahtera* application which was developed in collaboration with NSC, MOH, Malaysian Administrative Modernisation and Management Planning Unit (MAMPU), and the Ministry of Science, Technology and Innovation (MOSTI). The functionalities of the application included conducting of self-health assessment, obtaining the latest information on COVID-19 and risk areas, self-registrations before entering public premises, and most recently, registering for the COVID-19 vaccination programme.

To say the least, COVID-19 had changed the mood and landscape of the Year 2020, especially with Malaysians demand to adapt to new norms in facing the pandemic. Internet access became an important medium for information delivery and communications tool.

COVID-19 and the MCO had shown the country's crucial need for digital connectivity enhancement. Internet traffic increased between 30% to 70% while Internet usage in residential areas also spiked between 50% to 70%. Meanwhile, Internet speed decreased to almost 30% to 40% and complaints on internet quality and coverage increased between 40% to 70%.

These impacts caused a sharp increase in demand for Internet connectivity and speed in order for the people to get on with their daily activities such as learning, working, as well as disrupted economic activities during the MCO. This has encouraged the Government to continue to intensify its efforts to improve coverage and the quality of connectivity services.

YBrs. Dr. Fadhlullah Suhaimi Abdul Malek was appointed as the Chairman of MCMC by the Minister of Communications and Multimedia, YB Dato' Saifuddin Abdullah on 10 June 2020 to replace YBrs. Encik Al-

Ishsal Ishak. In line with the appointment, YB Minister also outlined his mandate to the Chairman, which, among others include improving governance and the organisation. Under this mandate, Dr Fadhlullah also led the development of three (3) main thrusts for MCMC, focusing on connectivity via *Jalinan Digital Negara* (JENDELA) Plan, transformation of the postal and courier industry, *Pusat Internet Komuniti* and MCMC State Offices, and plans for effective communications with the stakeholders.

Among the improvements in governance in 2020, formulation of the MCMC Strategic Plan (or MCMC Business Plan, "MCMCBP") using the Balanced Scorecard approach via:

- a) Top-down approach in direction-setting and work targets;
- b) Cultivation of teamwork;
- c) Emphasis on qualitative approach compared to quantitative; and
- d) Work plan based on four (4) perspectives comprising finance, the customer, internal processes as well as learning and growth.

The MCMCBP was developed to give emphasis on three (3) main focuses which include eight (8) strategic objectives:

Jalanan Digital Negara (JENDELA)	Transformation of the Postal & Courier Industry, Transformation of the <i>Pusat Internet Komuniti</i> (PIK), Transformation of the State Offices	Effective Communication
Enhance broadband coverage and quality of service	Enable state offices to function as MCMC microcosm	Enhance MCMC’s visibility and reputation as a proactive regulator
Ensure the foundation for the next generation technology	Transform PIK as a self-sustaining entity	Enhance stakeholders’ competency within the communications and multimedia regulatory framework
	Foster the advancement of socio-economic status of the local communities	
	Facilitate a competitive, resilient and sustainable postal and courier industry to support the digital economy	

To ensure the MCMCBP is laid out more comprehensively, all divisions and departments in MCMC were involved in discussion sessions led by the MCMC Chairman in a workshop at the MCMC Auditorium from 2–3 October 2020. Besides, the governance effort also needs to be enhanced to ensure the organisation has high integrity level as well as excellent workforce and continuity of replacement.



MCMC Business Plan (MCMCBP) Workshop Session

JALINAN DIGITAL NEGARA (JENDELA)

The National Digital Infrastructure Laboratory (NDIL) was held from 13 July to 14 August 2020. The NDIL aimed to create a comprehensive mapping of the country's communications infrastructure, a plan to improve coverage and quality of broadband services as well as measures to optimise resources, such as spectrum and fibre optics for improving the country's digital connectivity. This approach is centred on the synergy of cooperation between the Government and the industry players to produce an effective 'quick fix' process.

The action plan known as the *Jalinan Digital Negara* or JENDELA was formed and is now in its implementation phase, and will be executed in stages. JENDELA, which is estimated to cost RM21 billion, will strengthen the level of existing connectivity across the country by improving telecommunications infrastructure, i.e from the achievement of 7.5 million premises to be covered by the end of 2022 to nine (9) million premises; and 4G coverage network will cover 100% of populated areas in stages with Internet speed of 100Mbps beyond 2022.

This action plan was announced by the Prime Minister YAB Tan Sri Dato' Hj. Muhyiddin Md Yasin on 29 August 2020. The implementation of JENDELA will ensure that the country is better prepared to switch to fifth generation cellular network technology in the near future.

JENDELA is implemented in stages and divided into two (2) phases, namely Phase 1 which started in 2020; and Phase 2 which will commence after the conclusion of Phase 1 after 2022. The targets set under Phase 1 of JENDELA will ensure that existing resources are used optimally for fixed and mobile access :

- a) Provide gigabit speed access for fixed broadband services to 7.5 million premises;
- b) Expand 4G network coverage from 91.8% to 96.9% in populated areas; and
- c) Increase mobile broadband's average speed from 25Mbps to 35Mbps.

In addition, this phase will also include the gradual shut down of 3G networks by the end of 2021 to improve the quality of 4G networks and support the implementation of 5G networks in the fourth quarter of 2021. Meanwhile, the targets set under Phase 2 will focus on bridging the digital divide that was not fully accomplished during Phase 1, through the introduction of Fixed Wireless Access (FWA) and other appropriate technologies.

Details on JENDELA were announced by the Prime Minister at the launch of Gerbang Sabah, the submarine fibre optic cable landing station in Tanjung Aru, Kota Kinabalu, on 17 September 2020. Through Gerbang Sabah, the region of Sabah will be the biggest beneficiary of JENDELA as it will witness aggressive telecommunications infrastructure development.

In addition, to ensure the optimisation of the implementation of JENDELA, the telecommunications network has been recognised by the Government as a third utility, thus making Internet connectivity, digital economy and the country's creative economy as the country's third most important utility after water and electricity. This recognition will speed up the approval process and the construction of telecommunications infrastructure under JENDELA. The proposal to make the telecommunications network as the third utility was recommended by MCMC to the Minister of Communications and Multimedia Malaysia YB Dato' Saifuddin Abdullah, and he, for the first time presented the initiative at the 36th National Physical Planning Council meeting, chaired by Prime Minister YAB Tan Sri Dato' Hj. Muhyiddin Mohd Yasin on 21 October 2020. The announcement was the starting point for the implementation of this policy in each state, which requires state EXCO level approval. The process of recognising telecommunications as the third utility, however, will take time due to the administrative processes of each state. Surely, the application of this new policy will soon be emphasised for its implementation.

Furthermore, to ensure that there is no delay in the provision of quality communications services to the community, MCMC, through a Working Committee comprised of the communications industry players, professional bodies as well as relevant Government Departments and Agencies, undertook the initiative to develop the Communications Infrastructure Planning Guideline (GPP-I) to address this problem, and particularly to improve aspects of a more sustainable development planning. The GPP-I is important in complementing the implementation of telecommunications policies as the third utility. A detailed and inclusive communications infrastructure planning is essential to complement the growing development in Malaysia. Furthermore, the planning for the development of a more organised communications infrastructure is slated

to be in line with the initiatives the Government aspires to implement in the provision of sustainable settlement and industry development through Malaysia Smart City Framework, and Industry4WRD amongst others. This aspiration can be implemented with a guideline that can be coordinated at all levels and adopted by the Local Authority (LA) and the State Authority (SA) particularly in any development planning aspect.

Meanwhile, the implementation of JENDELA, as at 31 December 2020, had surpassed the initial target for fixed fibre optic in the installation of completed broadband at 129.7%. As for mobile broadband, new sites construction had reached 93.2% where 876 new sites were built against the target of 940. A total of 16,367 (100.9%) existing sites were successfully upgraded against the target of 16,214 sites in the first quarter of the implementation of JENDELA. The performance and level of implementation of JENDELA is monitored by the JENDELA Implementation Committee, which convenes every two (2) weeks.



JENDELA Briefing Session with the media



JENDELA Media Briefing Session with CEOs of telecommunications companies



JENDELA briefing session with the members of Parliament



JENDELA briefing session with the members of Parliament



The first NDIL briefing session with stakeholders



The first NDIL briefing session with stakeholders

TRANSFORMATION AGENDA

Improving the Postal & Courier Industry Service Performance

Following the effects of globalisation, there is certainly a demand on the postal and courier industry for faster, more efficient and traceable delivery. The COVID-19 pandemic has doubled the role of the postal and courier industry as online buying and selling activities recorded an increase by 28.9% in April 2020, when the Government enforced the first phase of MCO, in March 2020. Competition became more intensified for final-stage deliveries and it became a challenge for the industry. As at December 2020, there were reportedly a total of 119 courier service licensees of various categories operating in Malaysia.

Although demands and deliveries increased abruptly, the profit rate of the courier companies appeared to have declined. This was a distressing development and a total shift was required as a declining industry would not be able to invest, especially in digitalisation efforts to improve its quality of service for consumers.

Furthermore, from the end of 2019 up until 2020, MCMC had detected an obvious decline in the quality of courier services. From the consumer complaints received, as much as 86% involved poor quality of service, delivery delays and even loss of goods. The average delivery period had increased from 2.1 days to 4.6 days.

To ensure that an action plan can be laid out and be implemented effectively, MCMC took the initiative to enact a moratorium on the issuance of new courier licenses for the duration of two (2) years, from 14 September 2020 to 15 September 2022, under the Postal Services Act 2012.

This effort has enabled the Ministry of Communications and Multimedia Malaysia (KKMM), MCMC, other relevant Government agencies as well as the postal and courier industry players, to work hand in hand to draft a new action plan through the organisation of National Postal and Courier Industry Laboratory (NPCIL).

The NPCIL, which lasted eight (8) weeks from 12 October to 4 December 2020, was formed to enhance the courier services to create first class services for Malaysian consumers. The NPCIL action plan plays a very crucial role in the implementation of the Digital Economy development plan. This plan is based on the achievement of four (4) goals dubbed the 4R, namely:

- a) Reliability;
- b) Reachability;
- c) Relevancy; and

- d) Resiliency.

The 4R goals will in turn contribute to the national aspirations of the courier industry, and these include:

- a) Providing first class services to consumers;
- b) Streamlining the integration of the last-mile delivery system; and
- c) Ensuring customer satisfaction.

At the end of the lab, an action plan branded as National Courier Accelerator Plan or PAKEJ was established. Among the agenda were the introduction of pick-up drop-off (PUDO) points, assets sharing among courier companies, overhaul of operating license conditions, more economical delivery vehicles, notification and compliance with the period of delivery standards, as well as offer of insurance and premium services.

Pusat Internet Komuniti (PIK) as an economic digital community hall

In an effort to reduce the digital divide among Malaysians, a total of 873 *Pusat Internet Komuniti* (PIK) nationwide have been providing Internet access to people in rural areas since 2007. PIK also serves as a learning centre providing various trainings, awareness programmes and community engagements. It also functions as a central hub for channelling of information and initiatives by various Government and private agencies.

The role of PIK became increasingly significant especially during the COVID-19 pandemic which demanded the adaptation of new norms in everyday life. Face-to-face learning sessions in schools and institutes of higher learning (IPT) were affected by the pandemic. Thus, PIK became the main avenue for students, especially those living in rural and remote areas, to take classes or even sit for online examinations. One of the main focuses at PIK is to empower local entrepreneurs towards innovative and sustainable digitalisation in entrepreneurship development. Various digital entrepreneurship programmes have been implemented at PIK to guide entrepreneurs in expanding their businesses into broader markets through e-commerce platforms. Broader markets can increase sales revenue, resulting in a more lucrative income. To date, there are 20,353 active PIK entrepreneurs across Malaysia.

As at 31 December 2020, a total of 2.79 million entries from the local community were recorded as having attended information and communication technology (ICT) based programmes and training, Science and Technology, multimedia, Internet of Things (IoT), e-learning, and community engagement programmes offered at PIKs.

Meanwhile, registered PIK members were reportedly up to almost 678,000 in number. More than 520,000 non-members have also benefitted from the various facilities and services provided at PIK throughout the country.

State/Regional MCMC offices as strategic partners

Part of the main focus of MCMC's agenda was the transformation of MCMC State/Regional offices. MCMC had determined that state and regional offices throughout the country were to undergo efficient transformation and to function according to the needs of each state. The transformation is meant to enable state offices to serve as a microcosm in fulfilling the mandate of the Commission nationwide.

Apart from its core functions, the state offices aim to work cohesively with state authorities in developing the framework for digitalisation initiatives for each state, in line with the national digital agenda. The state transformation will allow MCMC to play an important role in the states involved, by helping in the implementation of telecommunication networks strategically through continuous involvement with PBT and PBN. Issues at the state level can be addressed more effectively and timely if the state offices are empowered in terms of resources and workforce, building capacity as well as task execution.

EFFECTIVE COMMUNICATION

Fortifying the MCMC Brand

Branding was another focus in the MCMC business plan. Crucial attention to lead the MCMC brand as an authoritative and reliable regulator plays a key role in complementing the roll-out of its flagship initiatives. In order to ensure the MCMC brand remains relevant in the midst of current developments, MCMC's logo was given an innovative look. The blue line in the original logo was removed. This move symbolised MCMC's boundless ability to continue to serve the mutual interests of the people and country to benefit both parties.

In 2020, the MCMC headquarters was renamed MCMC HQ, MCMC Tower 1, to mark the importance of the tower as a landmark in Cyberjaya. The former MCMC headquarters was renamed the Centre of Excellence (CoE). This indicates that MCMC will always drive a sustainable academic, research and development function as well as sustainable industry networking. The CoE is expected to serve as a centre of experience for future generation technologies.

Additionally, *Pusat Internet* (PI) under MCMC's supervision has also been rebranded to *Pusat Internet Komuniti* (PIK) to depict the Commission's continuous commitment in empowering digital literacy by reaching out to the underserved groups, as well as to facilitate the level of connectivity for the communities in rural and remote areas. Starting from the year 2020, all 873 PIK across the country have only displayed the MCMC logo.

Communication Effectiveness & Public Relations

The year 2020 had been a fast-paced year for MCMC in forging closer ties with the media. Various issues required action and response from MCMC by way of media statements, inquiries, interviews and media briefings.

MCMC and the media established good relations throughout the year, and here are some of the highlights of activities with the media in 2020:

- a) National Digital Identity Framework (6 January 2020)
- b) Launch of Malaysia 5G Demonstration Project in Langkawi (19-21 January 2020)
- c) Free myFreeview Decoders for Eligible B40s and the Disabled (OKU) (14 February 2020)
- d) Launch of Sebenarnya.my Telegram Official Account to Combat Fake News (16 March 2020)
- e) Malaysia's PRIHATIN Economic Stimulus Package (29 March 2020)
- f) Gerak Malaysia (3 May 2020)
- g) Issuance of 92 Compounds Amounting to RM4.6 million to Telcos (4 July 2020)
- h) MCMC's Handling of 99.83% of Complaints in the First Half of the Year (12 August 2020)
- i) MCMC and MyCC's Collaboration on the Handling of Exclusive Agreements in High-rise Buildings (17 August 2020)
- j) Introduction of JENDELA (29 August 2020)
- k) WSIS Prizes 2020 for 'Klik Dengan Bijak™' (10 September 2020)
- l) *Pusat Internet Komuniti* (PIK) Transformation (25 September 2020)
- m) Moratorium on the Issuance of Courier Service License (26 October 2020)

No.	Media Activity	Total
1	Media statements	107
2	Media inquiries	93
3	Interviews	91
4	Media briefings/coverage	26

Industry Analysts' Reference Source

The communication and multimedia industry has always played a pivotal role in the market. In order to ensure an understanding of the industry's trend and direction especially by investors, it is important that MCMC, as the regulator, provides valid and clear information. Various sessions with analysts have been carried out to this end. These sessions provide a platform for interaction between the aforementioned parties.

To further strengthen relationship with the analysts, MCMC has held multiple briefings to discuss contemporary issues, challenges and current developments that have taken place in the communications and multimedia industry, encompassing the Telecommunications, Broadcasting, Postal and Courier sectors. MCMC even held a special briefing to deliver updates on the progress of the JENDELA Report for the first quarter in December 2020. In addition, MCMC also issued a media alert entitled 'Stay in Touch with MCMC' for the analyst community, enabling them to follow industry developments on a monthly basis. This effort will be ongoing for MCMC's important initiatives so that authentic, accurate and up-to-date messages are communicated to the analysts to produce analytical reports on the industry and its impact on the national economy.

Leveraging on Social Media Platforms

Digital communication, particularly on social media plays an important role in MCMC's strategy to convey relevant information and disclosures on policy, to implement its programmes/activities, as well as to enhance its relationship with the public, besides improving communication effectiveness. MCMC has used its website and social media platforms such as Facebook, Instagram and Telegram to post their messages across strategically. MCMC optimises on the special features of the various social media channels for its video sharing, serial infographics, campaign announcements, links to websites and so on.

For example, serial infographics such as "Klik Dengan Bijak™", JENDELA, New Norms, COVID-19 Preventions, Check Your Label, Combatting Fake News and others have been loaded onto MCMC's official social media accounts to convey effective information and engage with the public. Other information posted on MCMC's social media also included matters like campaign announcements, the latest information on activities

such as the Awareness Campaign Promotions, “*Info Gerak Malaysia*”, “*Info PRIHATIN*”, MCMC Success Story via Mobile Video Journalism (MoJo) and many more.

In addition to that, a microsite was developed to help raise awareness about the COVID-19 pandemic, as well as Government announcements on policies and stimulus packages to help alleviate the people’s burden.

Aside from that, the MCMC website, which is equipped with the latest technology and design, has also played an important role in information delivery. Throughout the year 2020, the MCMC website had recorded a total of 2,502,528 visitors with the total number of regular visitors being 1,252,866 and new visitors being 1,249,662.

Combatting COVID-19 Fake News

The existence of the Internet and social media has undoubtedly helped speed up the delivery process of news as well as old and new information. It makes the Malaysian society more aware of the happenings around them while strengthening interpersonal relationships. However, society should be mindful of fake news. Created solely to attract netizens’ attention, fake news become trending issues on social media.

The situation had deeply concerned MCMC as provocative news have the unrelenting tendency to incite hatred among the country’s diverse communities. Such events have the capability to disrupt harmony and cause social disorder in the country.

Recognising the seriousness of these arising issues, MCMC had implemented the “Freedom of Speech but Not Freedom to Lie” campaign for a period of three (3) months from July to September 2020. The campaign emphasised on the importance of Malaysians being responsible in preserving the right to freedom of expression for the sake of maintaining harmony in the country. The campaign aimed to shape the moral compass, create a responsible culture and evoke a balanced access for freedom of speech and the truth.

The campaign promoted positive values such as ‘speak the truth’, ‘judge wisely’, and ‘be mindful when speaking’, which are deeply encouraged to be practiced by Internet users, all while focusing on the impact of fake news on the society. It is MCMC’s hope that freedom of speech within the community can be formed based on what is true, and that the community will inculcate the habit of speaking responsibly.

For example, people should not simply create and disseminate fake news, upload or distribute any content that may violate any provisions of the written laws in the country, comment beyond limits, and to the extent of causing disharmony and unrest among the people.

The campaign slogan, “Freedom of Speech but Not

Freedom to Lie” encouraged Malaysians to form and share their opinions or thoughts freely while at the same time, adhering to the law enacted under Article 10 (1) (a) of the Federal Constitution. Freedom of speech that is granted is not a ‘full license’ for an individual to act as they simply wish. Through the campaign, consumers were presented with the main message about not spreading lies (Do Not Share Lies); were made aware of the *Sebenarnya.my* portal; and that creating and distributing false or untrue content is unacceptable. The campaign was a continuation of the *Sebenarnya.my* portal campaign, which was previously launched on 14 March 2017, in an effort to tackle the issue of the spreading of fake news.

KKMM through MCMC intends to make *Sebenarnya.my* a one-stop centre for the public to check and channel information on unverified news received online. The portal visit statistics from January 2020 to December 2020 was 155.04 million with about 12.92 million hits per month. The *Sebenarnya.my* portal also received information from the community, followed up with the necessary further action by the respective Government agencies.

In 2020, the portal saw a sharp increase in the number of hits as well as information channelling. This was a consequence of the transmission of unauthenticated or doubtful information/news regarding the COVID-19 pandemic. Certainly, the ‘Freedom of Speech but Not Freedom to Lie’ campaign alongside the *Sebenarnya.my* portal have become the catalyst in MCMC’s efforts to educate the public on ethical online behaviour when issuing or distributing any types of news or information.

MCMC has also worked with service providers to optimise social media platforms to convey authentic information and messages about COVID-19 to the community. Throughout the periods of MCO, various issues such as connectivity and fake news on COVID-19 were communicated to the media in collaboration with telecommunications industry service providers. The reception received from the initiative has been encouraging.

In particular, from 5 May to 30 December 2020, the collaboration had successfully spread a total of 212 short message service (SMS) worth RM38 million to Malaysians. A total of 262 messages were broadcasted by nine (9) television stations reaching out to 16.5 million viewers, and 702 radio announcements were made through 30 radio stations reaching out to 18 million listeners. Upload activities on social media platforms such as Facebook, Instagram, Twitter and YouTube garnered 165 million views.

CONSOLIDATING ORGANISATIONAL RISK MANAGEMENT

COVID-19 Pandemic Control Efforts

MCMC through the Risk Management Department had launched in full crisis mode in early 2020 due to the COVID-19 pandemic. Some early planning for the year had to be postponed to give full attention in ensuring the safety of all staff while conducting business as usual. The Crisis Management Team (CMT) was established in February to address the outbreak of COVID-19 pandemic MCMC had also created an Alternate Working Arrangement Solution (AWAS) so that staff can work from home. Safety was a priority, and for those who needed to come to the office, MCMC implemented mandatory temperature scanning for all staff and visitors who entered its premises throughout the country.

All staff were encouraged to communicate and hold meetings virtually through video and teleconferencing facilities. In addition, MCMC also provided digital facilities and benefits to the staff. To support the work from home (WFH) policy, improvements were made to the ICT infrastructure and network capacity, including upgrading VPN security to support MCMC staff working from home.

FUTURE PROSPECT AND OUTLOOK

Stepping into the year 2021, the launch of the Malaysian Digital Economy Blueprint (MyDigital) provides a direction to making Malaysia a competitive nation in this new digital era. The MyDigital initiative is a critical benchmark for the realisation of the Twelfth Malaysia Plan (12MP), from 2021 to 2025, in tandem with the efforts towards the Shared Prosperity Vision (SPV) 2030.

In line with the MyDigital initiative, MCMC remains committed to the digitalisation agenda, sustainable connectivity for all through JENDELA, strengthening of the postal and courier industry through the implementation of PAKEJ, transforming the PIKs and State/Regional Offices to reduce the digital divide and enhancing digital literacy while shouldering the responsibility as regulator of the telecommunications, broadcasting, and postal and courier industries.

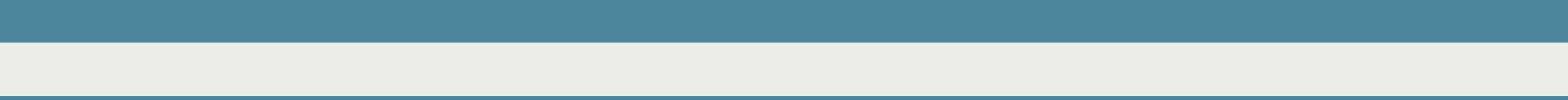
MCMC also intends to reconvene the National Interconnection Ecosystem Lab (NIEL) in the hopes of achieving the following aspirations:

- a) Strategic planning to develop Data Centres, Internet Exchange Points and International Connectivity to ensure Malaysia remains competitive as an attractive business destination for investment, especially international content providers such as cloud and over-the-top (OTT) media services.
- b) Recommend appropriate proposals and policies that can make Malaysia a viable country in the region, besides addressing the issue of Internet usage experience between Peninsular Malaysia and East Malaysia.
- c) To make Malaysia a global hub in terms of communications, multimedia and cloud services which is expected to positively impact the implementation of initiatives such as MyDigital and JENDELA.

Additionally, MCMC will continue to combat the spread of fake news by educating and creating public awareness as well as intensifying enforcement, so that those who continue to spread fake news are brought to justice. The *"Klik Dengan Bijak™"* Campaign for example, will continue with the implementation of various appropriate activities guided by the new norms so that the community is always responsible and understand their role when disseminating or voicing their views in public.

MCMC will always champion the rights and interests of our employees, besides emphasising every aspect of digitalisation to be in line with the Government's goal to make Malaysia a digital nation by 2030.

The year 2020 was indeed a challenging year and the challenges of COVID-19 pandemic will continue to be confronted in 2021. Despite the challenges, MCMC will continue making transformational steps to ensure the quality of service of the licensees is at the prescribed level. MCMC will strive to ensure that the industry remains in a good state for continuous investment, while strengthening and consolidating the industry's level of regulation with the tenacity to lead the industry and the country towards a digital era.



MALAYSIA 5G INITIATIVE

In 2020, Malaysia had successfully demonstrated 71 use cases at 50 5G base stations consisting of nine (9) industrial sectors, namely smart city, entertainment/media, oil and gas, tourism, manufacturing and processing, education, smart transportation, digital healthcare and agriculture with a total investment amounting to RM131 million. These use cases have been implemented in five (5) states, namely Kedah, Penang, Selangor, Terengganu and the Federal Territory of Kuala Lumpur.

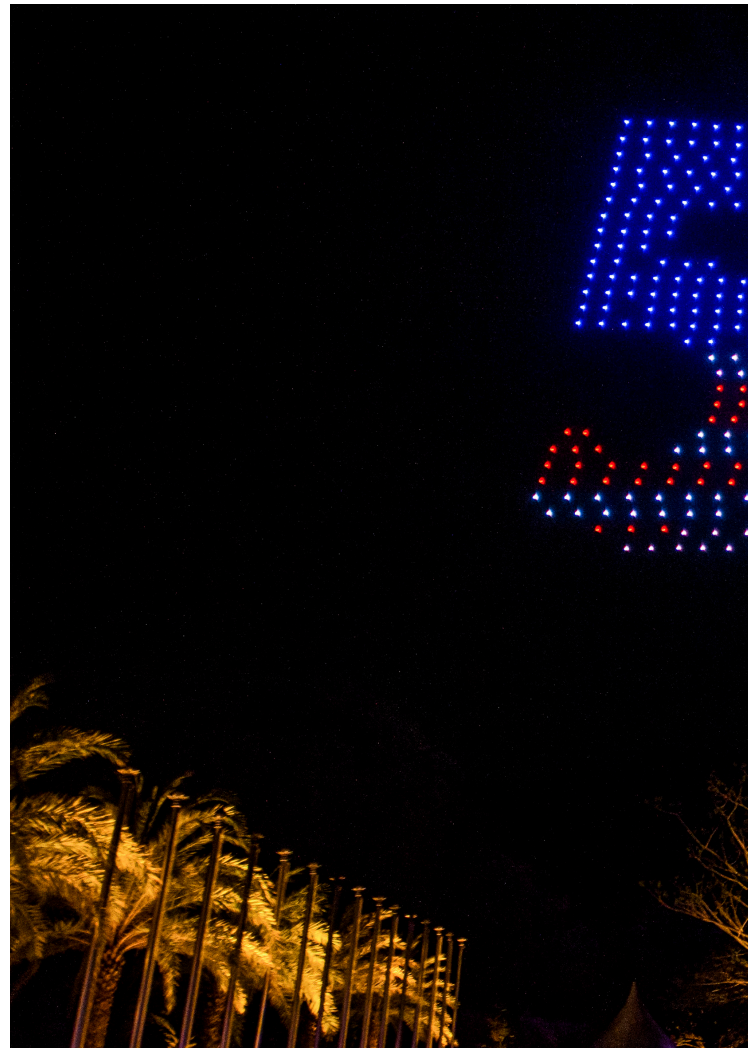
The 5G journey in Malaysia began in 2018 whereby MCMC with the theme "Progressing Humanity" played a major role in shaping the entire 5G landscape. "Progressing Humanity", 5G Malaysia Demonstration Projects was introduced to foster the development of high-potential 5G use cases in real but controlled environments, and to expand the 5G ecosystem in Malaysia across various sectors/industries. Through a collaborative effort involving stakeholders comprising industry strategic partners and various ministries, comprehensive 5G ecosystems were built and expanded through various new approaches including network and infrastructure sharing between service providers, policy review, research collaborations and more.

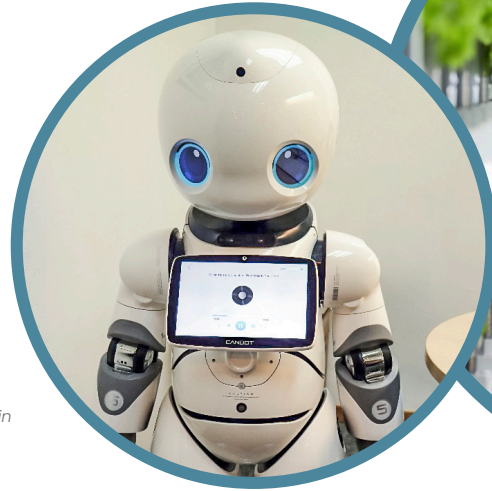
On 19 January 2020, Malaysia carved its name in the international arena following a large-scale 5GDP launch at the Langkawi International Convention Centre which was attended by almost 750 people representing the Federal and State Governments, ambassadors, analysts, licensees, private sector, Non-governmental Organisations (NGOs) and media practitioners. The launch ceremony was further enlivened by Telekom Malaysia Berhad's (TM) 555 drones in various formations illustrating the benefits of 5G, in line with the theme "Progressing Humanity". The presentation earned TM a listing in the Malaysia Book of Records (MBOR) as "The Most Number of Drones Used in a Technology Launch Event".

The launch of 5GDP was followed by the Malaysia 5G International Conference on 20-21 January 2020, which featured international and local speakers well-known in the industry, discussing 5G implementation developments and prospects in the Asian region. The conference received entries from 380 participants with 16 international and local speakers, including speakers

from the ITU Regional Office (Asia Pacific), GSA, GSMA, MIER, NTT Docomo, Telenor, Rakuten Mobile, Ministry of Science and ICT in Korea as well as the 5GDP Strategic Partner Chief Executive Officers.

The launch and site visits of 5G use cases also attracted the attention of 56 local media and 4 foreign media with the publication of more than 200 articles.





Visit to the location of 5G use cases in Langkawi, Kedah.



On social media platforms, the 5GDP topic successfully reached a total of 2,587,000 users (Facebook, Twitter, Instagram and YouTube) and received 3,210 reactions of like, share and comment.



SMART CITY



TM built 5GCC as a Security Monitoring Centre

In Langkawi, **Telekom Malaysia set up the 5G Command Centre (5GCC) in the compound of the Langkawi District and Land Office, Kuah, Langkawi.** Furnished with advanced integrated security features such as closed circuit televisions (CCTV) cameras installed focusing on areas along Jalan Pantai Cenang, Pantai Cenang and Jalan Persiaran Putera, Kuah, the 5GCC played the role of a security monitoring centre. Use cases such as Smart Traffic Light Solutions, Public Safety Geolocation, Smart Parking Solutions, Smart Retail Analytics, Smart Safety Helmet, Smart Vehicle Management System and Smart Water Management System, integrated in 5GCC, enable real-time surveillance and monitoring by local authorities, backed by data analytics, Artificial Intelligence (AI) and the Internet of Things (IoT).

Celcom works closely with PDRM in Langkawi and Penang; with Langkawi Port Authority as well as local authorities in Selangor to provide solutions that can improve public and premises security.



Joint effort between Celcom and PDRM in Langkawi to improve public and premises security

Simultaneously, Maxis works together with KOMTAR Tower to develop a smart surveillance system as one aspect of a smart building. Important as a visitor surveillance system, it helps to ensure that the area is well-monitored. The camera is equipped with various applications such as video analysis and IoT sensors that can be used to increase building safety and visitor experience. As this system collects data stream from multiple sources, the 5G network improves the quality and delivery of critical surveillance video through wireless networks with minimum latency and provides for a more effective monitoring and management in real time.

ENTERTAINMENT/MEDIA

U Mobile in collaboration with HTC Vive demonstrated the VR arcade shooter game—Front Defense Heroes

In the Entertainment sector, U Mobile showed the boundless potential of 5G through the Virtual Reality Games (VR Gaming) use case.

Front Defense Heroes is a VR arcade style shooter game with World War II as its theme. To showcase 5G capabilities and its low latency, the game was played by multiple players with the game server hosted in Taipei, Taiwan. Players enjoyed optimal VR gaming experience with zero lag time.



VR Gaming use case which was developed by U Mobile

OIL AND GAS



ANYmal robot used by PETRONAS in INSTEP, Terengganu to carry out monitoring activities on the oil rigs

In the Oil and Gas sector, **Petroleum Nasional Berhad (PETRONAS) utilises 5G to improve operational efficiency nationally through automation and digital transformation.** Use cases for this sector have been demonstrated by PETRONAS at the PETRONAS Institute of Petroleum Technology (INSTEP) in Kuala Nerus, Terengganu. The Smart Platform System and ANYmal (robotics) which apply real-time and past-time data, enables predictive analysis to be done through the collection of big data. This analysis improves operational efficiency in tracking and predicting unexpected machine interruptions. Internet of Things (IoT) applications used for Remote Operation Control provides real-time monitoring, as well as system, devices and machines inspections especially in dangerous and high-risk areas. Besides that, use cases such as face recognition, sensor devices on the body, and 4K CCTV video can also increase safety of platform workers.



Visitor experiencing the virtual reality travel

TOURISM

On display at the Langkawi International Airport (LIA), **Digi welcomed visitors to enjoy the VR experience of 360-degree views of various attractive locations on the island through 4K-quality live video.** The live video broadcast presents a short introduction and an initial overview of tourist hotspots and allows users to choose a location to enjoy and experience reality travel.

This solution also enables people with disabilities (OKU) to experience and enjoy hard-to-reach attractions. In addition, the company, **edotco Group Sdn Bhd, a telecommunications services provider has also developed another use case which focuses on the Smart Airport concept,** showcasing a mission-critical communications network, fully connected in an airport supporting the needs of airport operators, airlines, passengers, retailers and other services providers.

MANUFACTURING AND PROCESSING

In the Manufacturing and Processing sector, Conventional Surface Mounting Technology (SMT) use case is a closed loop system with its own internal sensor. Important data and production metrics are stored in the SMT system and can only be downloaded for offline analysis regularly. By employing sensors to perform data streaming to private cloud computing using high-speed networks and low latency activated by 5G, production operation goals related to product quality, operation time, labour, and material use as well as the lifespan of production equipment can be monitored in real time. This gives better analysis on production quality guarantee, efficiency and equipment condition. Compared to traditional techniques which are not on real-time basis, this system can eliminate errors in the work analysis and improve quality as well as inspection accuracy.



Industry 4.0 promotes a software-defined production system which allows for a faster production process modifications solution with minimum human interference





The use case of 5G aquARia Experience developed by Maxis in the education sector

EDUCATION

In the Education sector, Digi set up a 5G Virtual Designer Space located at RekaScape, Cyberjaya connecting users from various locations to learn, collaborate and create within a safe environment. There is also the underwater augmented reality (AR) experience powered by **Maxis 5G featured at the largest aquarium in Malaysia, the Aquaria KLCC.**

Maxis 5G aquARia Experience is unique in that it allows visitors to enjoy and experience the seabed, witnessing it up close and in real-time.

Through this exciting experience, Maxis provided everyone a glimpse of how 5G technology is able to provide fun, quality education. In addition, Maxis also provided a digital learning programme, eKelas enabling students to participate in VR classes at the Kampung Padang Wahid Internet Centre in Langkawi and at the Penang Digital Library in Penang. Students were indulged in their learning sessions, equipped with VR devices allowing for a more effective understanding about a subject, especially science and technology.

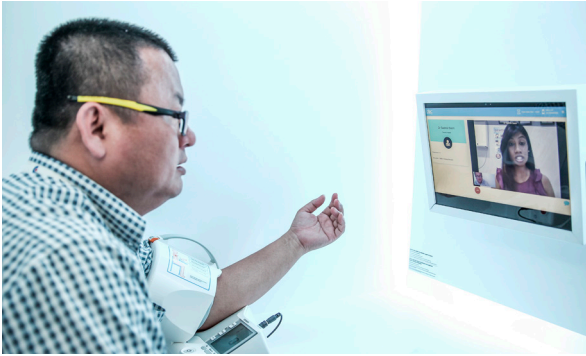
DIGITAL HEALTHCARE



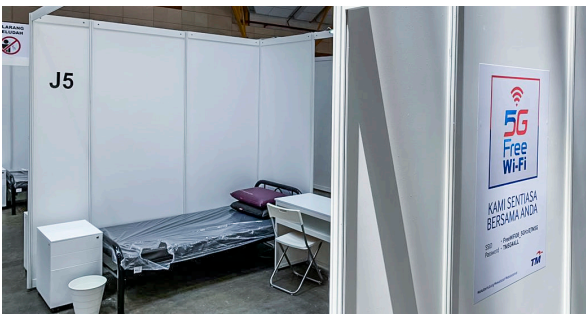
Use cases developed at the Sultanah Maliha Hospital, Langkawi

The implementation of 5GDP between service providers and the Sultanah Maliha Hospital in Langkawi is an important proof that the country needs a 5G network to enhance the healthcare sector in Malaysia. Digi brought in the hospital's first connected ambulance equipped with 5G which allowed data transfers on patients to be done during the ambulance trip to the hospital so that medical experts could be ready before the ambulance arrives at the hospital. **U Mobile and its digital solutions partner, MEDCOM meanwhile, provides Remote Consultation between Sultanah Maliha Hospital in Langkawi and Sultanah Bahiyah Hospital in Alor Setar.**

This use case involves the transmission of video, voice and real-time clinical data over the high-speed, low latency network.



The DoctorOnCall facility provides the opportunity for patients to get online consultation



MAEPS equipped with E-WAR

Hospitals can benefit from offsite specialist counsel. Surgeons at rural hospitals that lack specialist services are able to perform surgery and save a patient’s life with the help of a specialist from far away without having to move the patient. **U Mobile is also collaborating with DoctorOnCall to prove 5G limitless potential in healthcare through Long Distance Consultation by a general practitioner via DOCpod, i.e., a mobile diagnostics pod powered by 5G.** This allows a patient to have face-to-face medical consultation with a qualified medical doctor in real-time.

In an effort to curb the spread of COVID-19, the Early Warning and Response System (E-WAR) was deployed by TM to examine and detect abnormal body temperature in a large number of people at the Malaysia Agriculture Expo Park (MAEPS) Serdang. This system has a dashboard equipped with analysis and forecasts and is able to send warning to mobile phones in real-time when abnormal temperature is detected.



Modern Jitu Agriculture developed by TM in collaboration with BoomGrow

AGRICULTURE



TM deployed the use case for a smart agriculture solution in cooperation with a larger ecosystem partner in this sector, i.e.; **BoomGrow.**



The Artificial Intelligence (AI) technology-driven automation platform is able to realise the modeling growth and forecast control system with real-time monitoring and data alarm system (temperature, pH, fertiliser concentration). The system allows remote control and monitoring that makes agriculture possible anywhere.





The use of spectrum needs to be planned, well-maintained, regulated and coordinated at local and international levels to ensure that it is free from interference and to guarantee service quality.

In 2020, MCMC performed and participated in several activities to ensure the spectrum could be used optimally.



SPECTRUM MANAGEMENT

SPECTRUM PLANNING

Spectrum resources are national assets which are being managed by MCMC in accordance with the CMA 1998 and the Communications and Multimedia (Spectrum) Regulations 2000. Generally, spectrum management consists of the following:

- a) Assignment, which comprises of three (3) types, namely spectrum assignment, apparatus assignment and class assignment;
- b) Planning and policy development on the spectrum usage through development and publication of the Spectrum Plan and the Standard Radio System Plan (SRSP) documents;
- c) Domestic bilateral coordination with Government agencies; and
- d) International technical coordination with neighbouring and other countries.

ACTIVITIES DURING THE YEAR 2020

Standard Radio System Plan (SRSP)

Spectrum as a high-value national asset needs to be well managed and regulated to ensure it provides high quality service and is free from any interference. Among the measures taken to optimise spectrum resources is to align the use of spectrum with the latest developments.

SRSP serves as a guide on the specifications of radio systems and equipment operating in specific frequency bands including the type of assignment, list of frequency channels, coordination requirements with existing services and neighbouring countries, as well as conditions for use of the equipment.

SRSP is an important document in ensuring frequency bands can be used efficiently without any interference. SRSP will be reviewed and updated as and when necessary to reflect the latest requirements.

In year 2020, MCMC had issued one (1) new SRSP, namely, "MCMC SRSP MS 800 – Requirements for International Mobile Telecommunications Systems Operating in the Frequency Bands of 839 MHz to 844 MHz and 798 MHz to 803 MHz".

Re-Stacking Of Digital TV Broadcast Frequencies

In June 2020, MCMC had completed the re-stacking of Digital TV broadcast frequencies. This was done to vacate the 700 MHz frequency band and facilitate the planning of the use of mobile broadband services in the said band.

REVISION OF CLASS ASSIGNMENT

In November 2020, MCMC had made a revision to the Class Assignment extending the "Personal Radio Service" device usage, operating in the frequency band of 477.0125 MHz to 477.4875 MHz and 477.5250 MHz to 477.9875 MHz, until 31 December 2022. A notice to inform the public on this matter was issued accordingly through local newspapers and MCMC official website.

STUDY ON RE-PLANNING OF FM RADIO FREQUENCY

The study on re-planning of FM radio frequency, focusing on the current frequency usage and to re-plan the use of FM radio frequency in Malaysia was completed in July 2020. The outcome of the study showed that no new FM radio frequency could be assigned in the following areas or locations:

- a) Main cities and major focus areas such as the Klang Valley, Penang, Johor Bahru, Kota Kinabalu and Kuching.
- b) Areas near the international borders such as in the north and south of Peninsular Malaysia, Sabah and Sarawak.

Following that, MCMC will hold a consultation session with the public and commercial broadcasters as well as the relevant Government agencies to identify appropriate platforms or methods in ensuring the continuity and development of the radio broadcasting industry in Malaysia.

THE USE OF LOW POWER FM FREQUENCY FOR DRIVE-IN SERVICES

The situation caused by a global pandemic such as COVID-19 which requires physical distancing has created a demand to provide drive-in services, for example, the Drive-In Cinema. This drive-in service must comply with the Standard Operating Procedures (SOPs) issued by Government agencies such as the NSC, the MOH and the RMP.

This small-scale drive-in concept service will use low-power FM radio transmitters to broadcast audio content to the viewers in specific areas and locations, where viewers will listen to the audio through FM radio receivers in their vehicles. MCMC has identified frequencies ranging from 100.0 MHz to 108.0 MHz to accommodate the demand.

Therefore, a guideline related to the operation of low-power FM radio transmitters for drive-in services has been issued by MCMC. This guideline, published in MCMC official website, will serve as applicant reference on the requirements that must be complied, in order to provide drive-in services.

SPECTRUM FEE REVIEW

Spectrum fee review is essential in improving the efficiency of spectrum usage, while ensuring that national objectives and targets can be achieved. MCMC has taken proactive steps by initiating a study on the use of spectrum in Malaysia, for the purpose of reviewing the spectrum fee. This is to ensure that the spectrum fee in Malaysia is up to date, by considering the current and future demand of spectrum.

TECHNICAL COORDINATION BETWEEN BORDER COUNTRIES.

Technical coordination in the country's border areas is essential to ensure efficient use of spectrum and to overcome interference issues. This coordination is conducted in accordance with the specifications, guidelines and regulations that have been set at domestic and international levels.

During the year 2020, a total of nine (9) meetings were successfully conducted virtually (online), namely:

- a) Frequency Assignment Committee between Singapore, Malaysia and Brunei Darussalam (FACSMAB) 913th to 918th meetings.
- b) FACSMAB Review Meeting (FACSMAB Top Management Meeting) 21st meeting.
- c) Meeting on Frequency Coordination Process between The Republic of Indonesia and Malaysia (JCC Sub-Working Group meeting) 1st meeting.
- d) 18th Trilateral Coordination Meeting between the Republic of Indonesia, Malaysia and Singapore (TRILATERAL).



Among the activities carried out by the committee were planning and coordination of radio spectrum use, preparation of guidelines, determination of coordination specifications, registration of frequency usage at the common border areas, and frequency interference resolution.



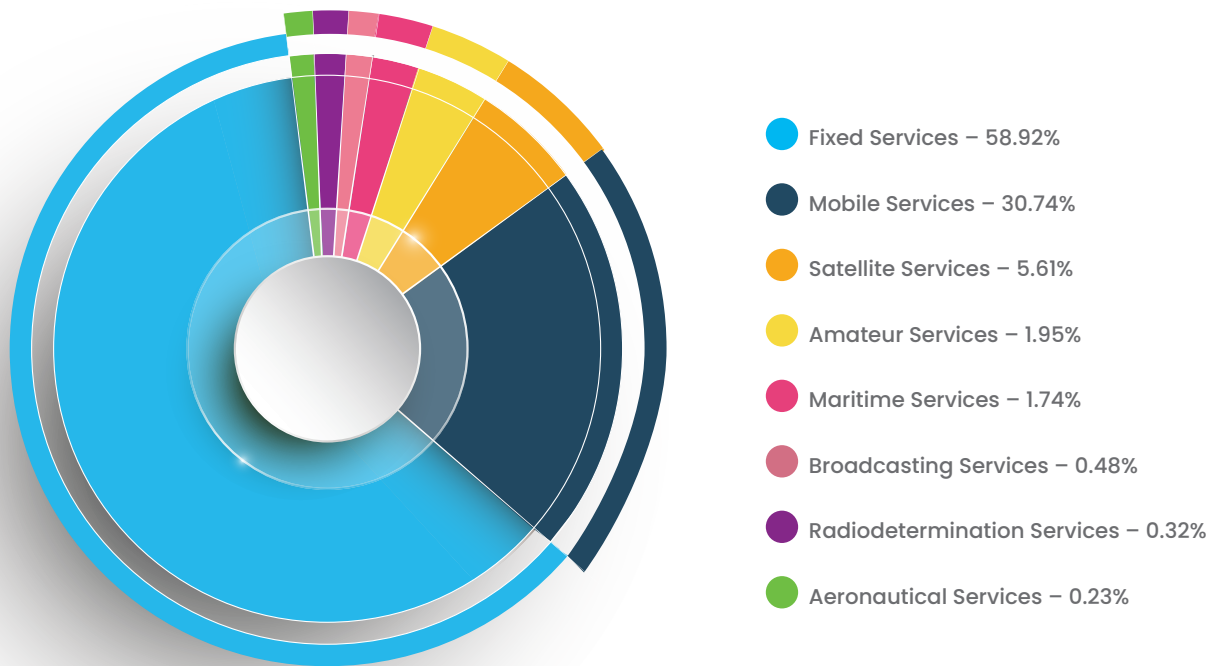
APPARATUS ASSIGNMENT (AA)

A total of 172,881 Apparatus Assignments (AA) had been issued as at 31 December 2020, as below:

Types of Services	New Application	Re-Application	Total Application
Radiodetermination services	156	400	556
Aeronautical services	60	341	401
Broadcasting services	59	779	838
Maritime services	1,439	1,566	3,005
Amateur services	824	2,547	3,371
Satellite services	6,485	3,205	9,690
Mobile services	15,935	37,215	53,150
Fixed services	31,094	70,776	101,870
Total	56,052	116,829	172,881

Total number of (AA) issued by types of services as at 31 December 2020

AA BY TYPES OF SERVICES



INSPECTION AND VERIFICATION OF AA

Inspection and verification of AA were conducted throughout 2020 to ensure that radio communication equipment complied with the provisions under the CMA 1998 and the Communications and Multimedia (Spectrum) Regulations 2000, as summarised below:

No.	Activity	Total Inspection	Total AA Verified
1	Regular inspection of Apparatus and Spectrum Assignment in the Central Region only. (The same cannot be executed in other regions due to COVID-19 pandemic restrictions from 18 March to 31 December 2020)	4	172
2	Commissioning of AA trial transmission of 5G service * Note: * Including commissioning of transmissions performed virtually through online platform during MCO period due to COVID-19 pandemic	29*	38
3	Commissioning of AA trial transmission for broadcasting services for Digital Terrestrial Television (DTTB) * Note: * Including commissioning of transmissions performed virtually through online platform during MCO period due to COVID-19 pandemic	19*	19
Total		52	229

Inspection and commissioning of trial transmission

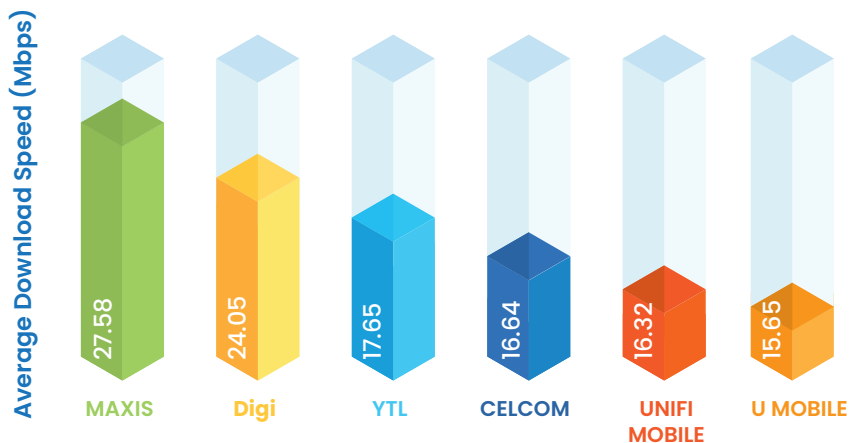
SERVICE QUALITY

Service Network Performance

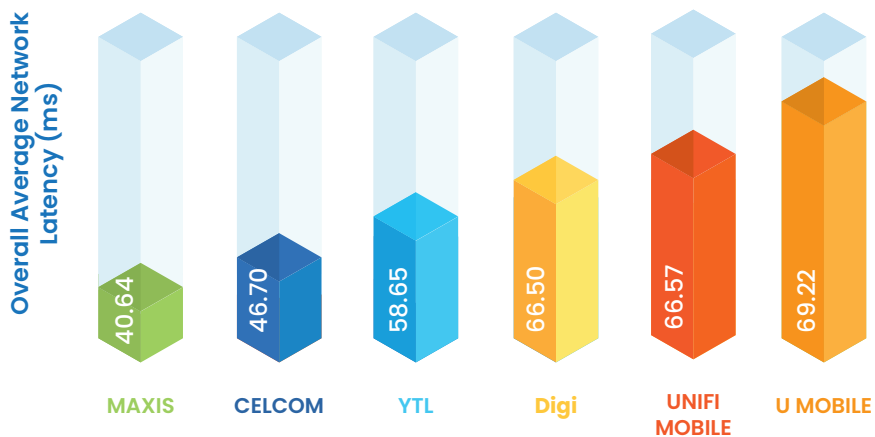
MCMC conducts annual service performance evaluations for public cellular, wireless broadband and wired broadband services. Evaluation of service performance level is conducted nationwide based on compliance with the Mandatory Standards for Quality of Service (“MSQoS”) which includes MSQoS Public Cellular Service, Wireless Broadband Access Service and Wired Broadband Access Service. In 2020, evaluations were conducted from January 2020 to December 2020. The quality of service of the network provided by the service provider determines the quality experienced by the users. The International Telecommunication Union-Standardization (ITU-T) also states that the quality of services offered and the quality provided by service providers are related to the quality required and the quality received by consumers. Therefore, in order to ensure that service providers achieve the minimum level of quality required of them and to fulfil consumer requests, the Mandatory Standards have been set.

WIRELESS BROADBAND SERVICE PERFORMANCE

In today’s digital era, the use of data services by the consumers is not limited to basic communication and entertainment needs only, but also in business activities and social lifestyles. Wireless broadband is indeed a catalyst for these needs. The figure below shows the average download speed (Mbps) and the average network latency (ms), for each of the wireless broadband service providers in Malaysia for the year 2020.



Wireless Broadband Network Performance 2020–Average Download Speed



Wireless Broadband Network Performance 2020 – Average Network Latency

For year 2020 assessment, the wireless broadband performance evaluation focused more on locations and areas of consumer complaints. The figure below shows the overall performance of the quality service network based on compliance with the Mandatory Standards.

	Overall download speed ≥ 1 Mbps	Overall Network Latency ≤ 250 ms	Overall Packet Loss
	≥ 80.0% of the time	≥ 70.0% of the time	≤ 3.0%
Celcom	90.06	99.59	0.05
Digi	95.21	98.22	0.15
Maxis	97.59	99.66	0.04
U Mobile	91.69	98.84	0.18
Unifi Mobile	88.74	98.43	0.11
YTL	98.05	99.44	0.01

Wireless broadband network performance - compliance with mandatory standards 2020

WIRED BROADBAND SERVICE PERFORMANCE

In terms of wired broadband network performance, MCMC measures the quality of home fibre optic Internet access connection and Digital Subscriber Line (DSL). Measurement is performed by connecting directly to Customer Premise Equipment (CPE) or on-premise router to measure the actual service received compared to the broadband subscription package subscribed. The service network performance parameters set out in the Mandatory Standards for Digital Subscriber Line (DSL) services and fibre optic services must be achieved by wired broadband service providers to ensure that the paid users' rights are fulfilled.

The table below shows the performance quality of wired broadband service providers in Malaysia for the year 2020.

	Fibre Optic Home Internet Access			
	% Upload speed ≥ 90% subscription speed	% Download speed ≥ 90% subscription speed	% Network latency ≤ 85 ms	% Packet loss
	≥ 90% of the time	≥ 90% of the time	≥ 95.0% of the time	≤ 1.0%
Maxis	98.35	95.65	97.27	0.07
TIME	99.70	75.23	100.00	0.00
TM	99.74	98.41	99.84	0.02

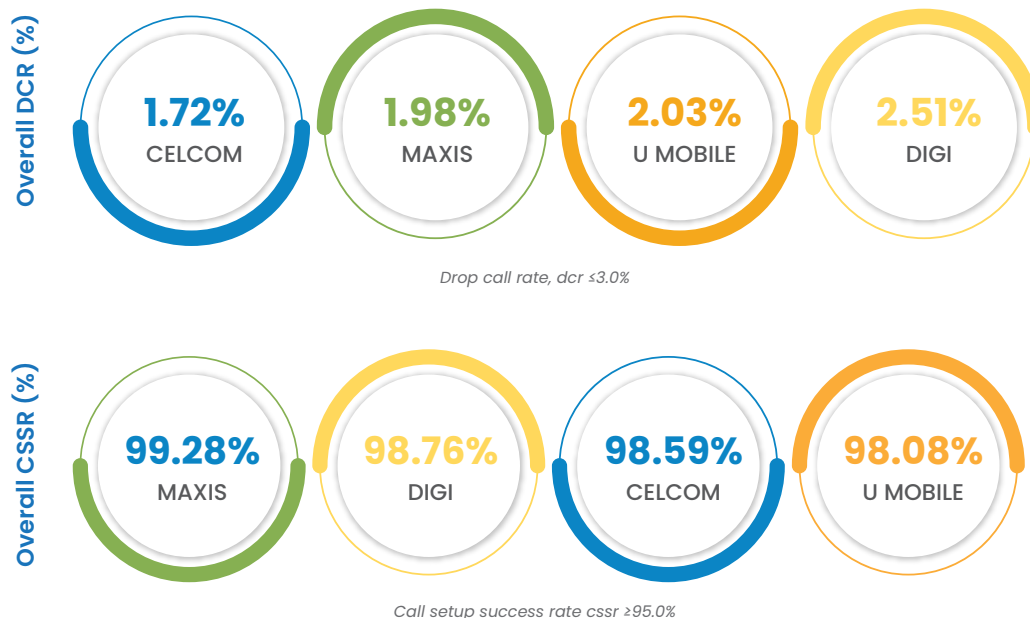
	DSL Home Internet Access			
	% Upload speed ≥ 70% subscription speed	% Download speed ≥ 70% subscription speed	% Network latency ≤ 85 ms	% Packet loss
	≥ 90% of the time	≥ 90% of the time	≥ 95.0% of the time	≤ 1.0%
Maxis	99.30	93.35	100.00	6.81
TM	100.00	99.96	100.00	0.06

Wired broadband network performance - mandatory standard compliance for 2020

In terms of speed and latency, fibre optic networks as the last mile are expected to have better performance than DSL. This is because fibre optic technology is specially designed for high broadband speeds, providing large broadband to customers. Following this, MCMC will expand the provision of gigabit connectivity to premises in Malaysia through the JENDELA initiative. Service providers are gradually replacing DSL networks with fibre optics to improve service quality. This initiative will help exceed the expectations and demands from consumers for faster Internet services.

PERFORMANCE OF PUBLIC CELLULAR SERVICES

One of the most important mediums of communication besides the increase in data usage is public cellular voice call services. Currently, a majority of people are still utilising the 3G and 2G networks for voice calls. In realising the 3G Sunset in 2021, MCMC and service providers work together to increase the use of Voice Over LTE (VoLTE) to offer better voice call experience. Therefore, the performance of voice call accessibility and stability is continuously monitored by MCMC throughout Malaysia to ensure service providers comply with the minimum requirements that have been set for Call Setup Success Rate (CSSR) and Dropped Call Rate (DCR), and Public Cellular Service Performance as specified in the Mandatory Standard. The figure below shows the nationwide performance of CSSR and DCR for 2020.



Public cellular service performance—mandatory standard compliance 2020

Service providers are focusing on activating VoLTE features in their networks. With this technology activated, users will be able to experience better voice call clarity. However, consumers need to ensure that their mobile devices support the VoLTE feature, as this feature may not be supported by older mobile devices.

SPECTRUM MONITORING AND INTERFERENCE SOLUTION

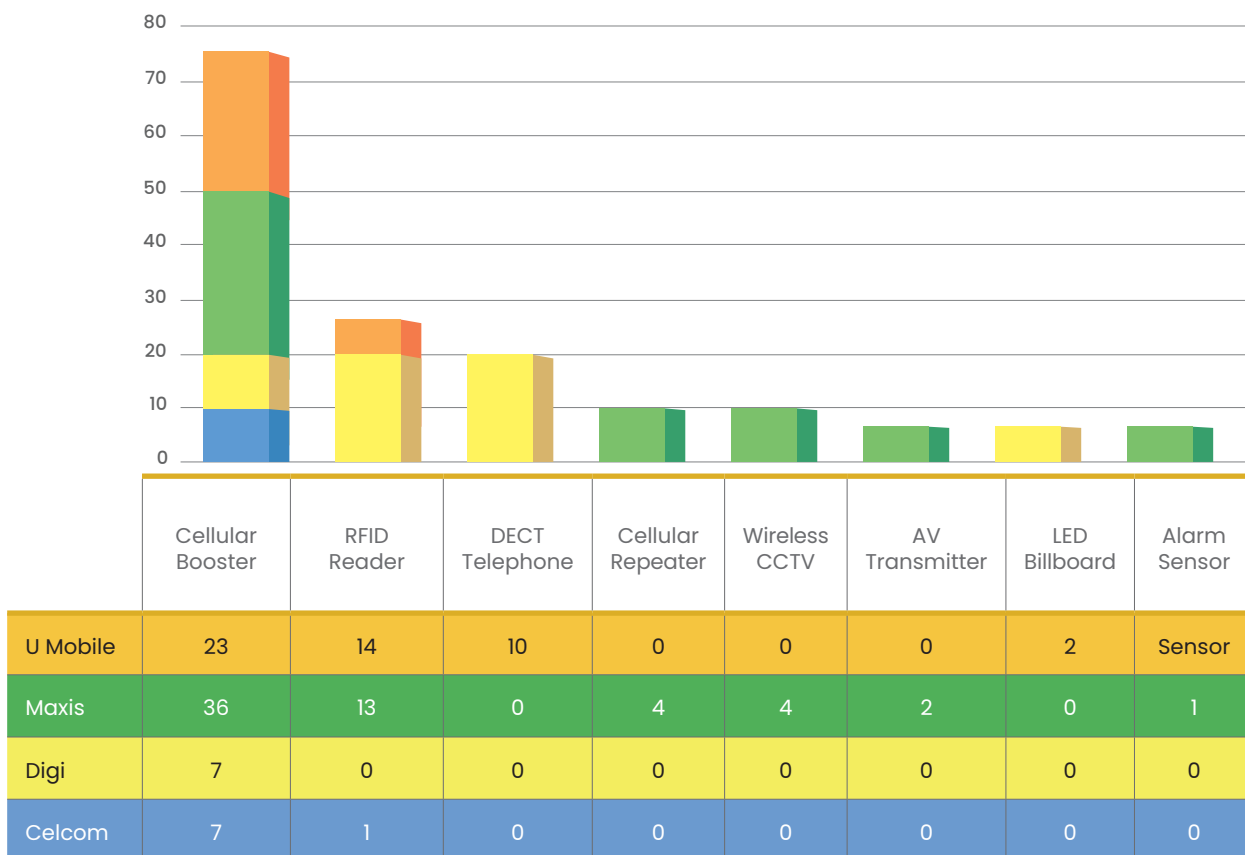
Spectrum Interference

In 2020, MCMC had successfully resolved 398 radio frequency interference (RFI) cases. MCMC received and investigated a total of 710 cases, including 176 cases from previous years. The table below shows the number of RFI cases which were investigated in 2020. These cases are categorised under unresolved status or successfully resolved status as below.



There were 534 new RFI cases reported in 2020 of which 111 cases were RFI type complaints and 423 cases were of RFI scanning requests. Based on the new guidelines regarding the RFI submission process that came into effect on 1 January 2021, MCMC will only receive and investigate RFI scanning requests from government agencies, while other licensees should file RFI complaints with suspected interfering premises if they experience spectrum interference. The figure covers the number of RFI cases by types of equipment found in 2020. Out of 374 cases, 124 cases of interference by non-standard equipment were successfully resolved. Cellular boosters accounted for a total of 73 RFI cases with a total of 227 units of devices found, based on the investigations conducted nationwide.

Radio Frequency Identification (RFID) readers were second, with a total of 28 RFI cases which involved approximately 33 units of devices. The statistics continued with cordless telephones (DECT telephones) as the third highest with 10 RFI cases and no less than 12 units found during the investigations. The figure shows the number of RFI cases by types of equipment in 2020.



Number of RFI cases by types of equipment in 2020

Cellular boosters are electronic devices that increase the coverage of available 2G, 3G, and 4G networks. Basically, a cellular booster is a device which helps improve the quality of calls, weak wireless broadband signals and increase data speed.

Cellular boosters also work by pulling weak external signals, increasing it and re-channelling the amplified signal into desired areas. It also works in reverse where cellular boosters receive signals from cell phones and send it back to the telecommunications tower. In view of the number of cellular boosters that had become one of the sources causing RFI interference, MCMC published Guidelines on the Purchase, Use and Possession of

Cellular Booster or Repeater on 15 December 2020. These Guidelines introduced a mechanism to control purchase and use of cellular boosters by the public as well as setting policies where only service providers are allowed to supply and install certified cellular boosters to their customers as one of the solutions to address complaints on weak coverage.

The following image shows a non-standard cellular booster equipment and its antenna.



Cellular booster antenna



Non-standard cellular boosters

SPECTRUM MONITORING FROM 30 MHz TO 18 GHz

MCMC had been monitoring the frequency range from 30 to 500 MHz in Q1 and Q2 of 2020 and subsequently conducting investigations at suspected locations in Q3 and Q4 of 2020. Monitoring activities were carried out around high radio population areas within a distance of 50 km from the MCMC Remote Monitoring Station (RMS). Spectrum data was collected from all 35 RMSs available throughout Malaysia and further monitoring activities were carried out using nearby RMSs to identify areas where unlicensed frequencies were suspected. Frequencies are categorised as unlicensed frequencies when found to be operating without Apparatus Assignment (AA). The whole process is summarised in the figure below.



Unlicensed frequency monitoring process

MCMC conducted eleven (11) on-site investigations after completing the technical analysis in the second quarter of 2020 and was successful in identifying 24 unlicensed frequencies as per the following table:

No	Frequency (MHz)	Bandwidth (kHz)	Regions	Location
1	125.3250	25.0	Central	Subang Airport
2	126.4500	25.0	Central	KLIA
3	128.0500	25.0	Central	Subang Airport
4	383.0750	12.5	Central	MITEC
5	390.1250	25.0	Central	Hang Tuah Station
6	390.3750	25.0	Central	Imbi Station
7	390.6250	25.0	Central	Bukit Bintang Station
8	390.8750	25.0	Central	Merdeka Station
9	391.1250	25.0	Central	LRT Depot
10	391.3750	25.0	Central	LRT Depot
11	391.6250	25.0	Central	LRT Depot
12	391.8750	25.0	Central	LRT Depot
13	392.1250	25.0	Central	LRT Depot
14	394.4755	25.0	Central	Station Kajang
15	396.2250	25.0	Central	Station Kajang
16	423.5500	12.5	Central	Genting Highlands
17	423.8750	12.5	Central	Genting Highlands
18	424.0750	12.5	Central	Genting Highlands
19	424.0875	12.5	Central	Genting Highlands
20	424.8000	12.5	Central	Genting Highlands

21	120.7	200	North	Bukit Penara
22	128.2500	25.0	East	Airport Kerteh
23	153.4625	12.5	East	Tumpat
24	421.7500	12.5	East	Bukit Bauk

Unlicensed frequencies recorded in 2020



The diagram shows the 13 monitored areas in Selangor from January to September 2020.



Microwave link monitoring setup

MCMC also monitors frequencies of cellular mobile base stations and microwave link stations operating without AA. The diagram above shows the setup during microwave link monitoring using the new Mobile Monitoring System (MMS).



Radio repeater without AA

An equipment using the frequency 153.4625 MHz without AA in Tumpat, Kelantan.

MCMC had identified five (5) microwave link stations operating without AA based in the 13 monitored areas as summarised in the table below. After the discovery of the unlicensed microwave link stations, there were new AA applications from licensees (3 links), station decommissioning (1 link) and frequency change according to AA (1 link).

No	Microwave Link Station
1	Kg. Sg. Jenjarom – 14669 MHz
2	Kg. Sg. Jenjarom – 14669 MHz
3	Kanchong Darat – 14641 MHz
4	Taman Bakti – 12905 MHz
5	Elite RNR Bukit Raja – 17837 MHz

Summary of microwave link stations operating without AA in 2020

SPECTRUM MONITORING IN C-BAND SATELLITE

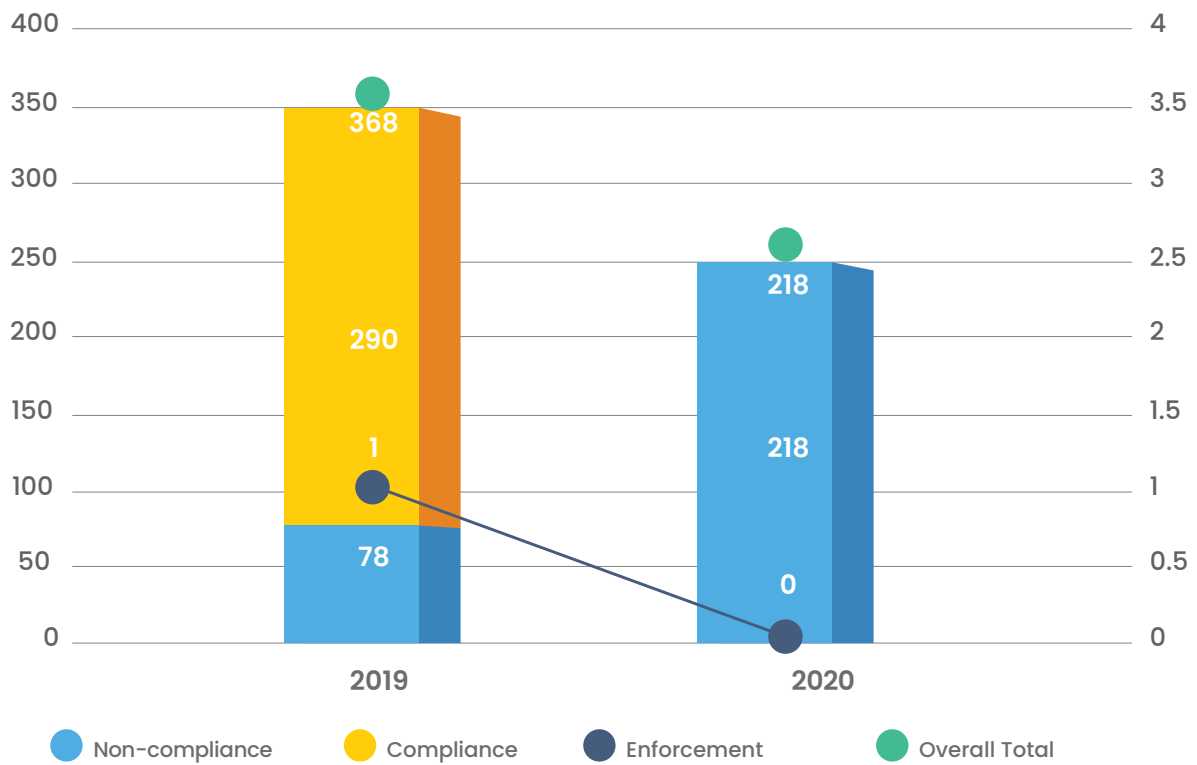
Satellite communication uses frequency range from 3.7 to 4.2 GHz for downlink transmission and 5.925 to 6.425 GHz for uplink transmission. MCMC monitored the C-band uplink transmissions from January to September 2020 to ensure the frequency and bandwidth used by licensees are based on AA records. Monitoring activities are performed using satellite monitoring stations equipped with an 8-meter antenna which is located at

the MCMC Centre of Excellence building as shown below. This monitoring activity is focused on all earth stations that communicate through the 91.5 ° E orbital slot where 3 satellites are located namely MEASAT-3, MEASAT-3A and MEASAT-3B.

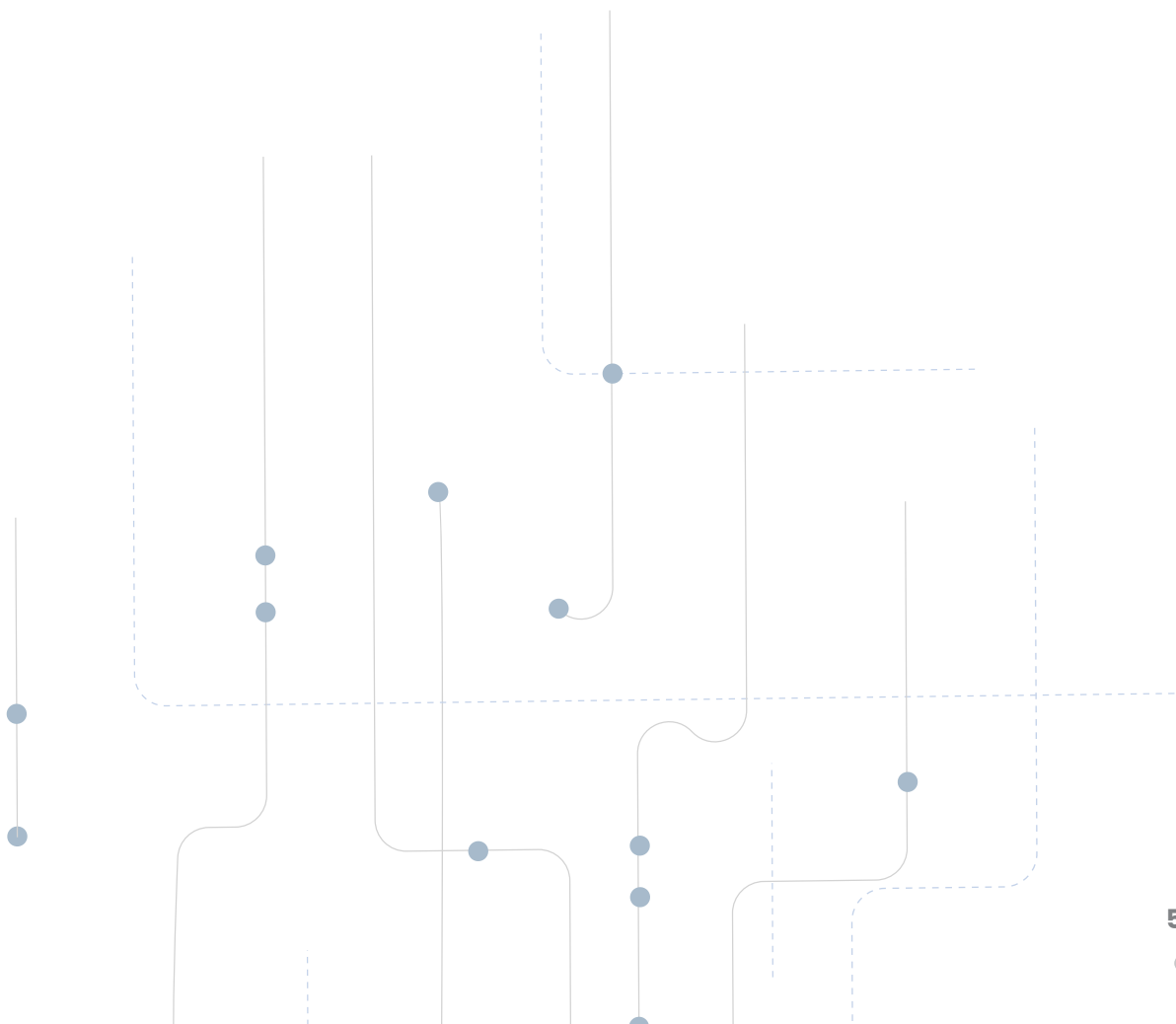


MCMC satellite monitoring system

MCMC has monitored 218 AA records for earth stations with 59 unique uplink frequencies involving 12 licensees. The monitoring results showed that all 12 licensees complied and operated according to the approved uplink frequencies and bandwidth as specified in the AA. Two (2) years of continuous monitoring activity from 2019 to 2020 resulted in 100% compliance as shown in the figure below.



Comparison of total compliance from 2019 to 2020



POSTAL AND COURIER SERVICE TRANSFORMATION

The growth of e-Commerce services has shown that digital economy will be one of the key drivers of the world economy and will have an impact on Malaysia's economic growth. Therefore, the postal and courier service industry needs to play an important role in supporting such growth.

It is important that the country's postal and courier service industry players take the necessary steps to ensure that they are able to provide first class service quality to the people from the service, access and coverage perspective.

As of 31 December 2020, there were 119 courier service licensees under categories A, B, and C operating nationwide as follows:

Class	Detail	Number of Licensees
A	International inbound and outbound & domestic courier services	43
B	International inbound & domestic courier services	49
C	Intra-state domestic courier services	27

As the regulatory body for the postal and courier service industry, MCMC plays an important role in formulating strategic plans to improve as well as empower the industry to face various possibilities of current and future challenges along with technological changes, market trends as well as consumer's inclination towards new trends.

For that purpose, MCMC has taken a proactive approach by setting a moratorium period of two (2) years

effective 14 September 2020 to 15 September 2022 where MCMC will review the licensing framework to ensure the postal and courier service industries remain competitive, inclusive and relevant to current global developments. Within this period, applications for new licenses as well as license renewals have been temporarily frozen.

THE NATIONAL POSTAL AND COURIER INDUSTRY LAB (NPCIL)

MCMC had implemented a consulting laboratory initiative known as the National Postal and Courier Industry Lab (NPCIL) between MCMC and 108 industry stakeholders over a period of eight (8) weeks from 12 October to 4 December 2020, to outline the action plan and direction of the country's postal and courier service industry. In essence, NPCIL aimed at improving performance through the 4R Strategy:

RELIABILITY

QUALITY OF SERVICE

REACHABILITY

SEAMLESS COVERAGE

RELEVANCY

THROUGH INDUSTRY
GROWTH IN DIGITAL
ECONOMY

RESILIENCY

SUSTAINABILITY

NPCIL has set a strategic aspiration to improve the performance and capacity of the postal and courier service industry based on the 'True North' which is



Delivering Quality of Service and Seamless Coverage to all Malaysians Sustainably to Support the Projected e-Commerce Industry Growth of 14 Parcels Per Capita in 2020 to 30 Parcels Per Capita by 2025



NPCIL ASPIRATIONS

Outcomes	National Aspirations
a) Committed quality of service set by industry and Government.	a) First class service quality for the people.
b) Industry-led digitalisation projects; and Courier Coverage Mapping.	b) Improved integration of last mile delivery.
c) Strengthening of the licensing framework.	c) Seamless customer experience.

Thus, NPCIL focuses on the growth and sustainability of the courier service industry based on the following 'True North' where eight (8) initiatives have been developed following the findings from the lab activities as shown below:

TRUE NORTH	
Delivering Quality of Service and Seamless Coverage to All Malaysians Sustainably to Support the Projected e-Commerce Industry Growth From 14 Parcels Per Capita in 2020 to 30 Parcels Per Capita by 2025	
Achieving Industry Sustainability	First Class Quality of Service (QoS) and Coverage-backed Growth
1) PAKEJ Service Counters (PSC)	5) QoS Standards Disclosure and Insurance Policy
2) Resource Sharing of Rural Posmen Komuniti (PK)	6) Licensing Framework Review
3) Parcel Commercial Vehicle Enhancement	7) Courier Infrastructure Network Map
4) Digital Transformation to support Industry Sustainability	8) National Address System

Eight (8) initiatives developed under the NPCIL

Details of the initiatives that have been developed under the NPCIL are as follows:

First-Class Quality of Service	Seamless Access and Coverage
Initiatives aimed at providing first class courier services for the people	Initiatives targeted to increase access as well as overall coverage by optimising existing assets and infrastructure
a) Issuance of 'QoS' Quality of Service by licensees - by issuing a Service Level Agreement (SLA) on prices and delivery times as well as including options for insurance, Malaysians will benefit from a more transparent and clear understanding of services options based on the SLA.	a) Asset sharing and collaboration with <i>Posmen Komuniti</i> (PK) - under Pos Malaysia and collaboration initiatives with courier service companies will increase coverage and increase efficiency as well as reduce costs.

<p>b) Proposed Improvement of Postal Commercial Vehicles – New vehicles such as Electrical Three-Wheeler (E3W) that meet specific requirements (up to 15x the capacity of two-wheeled vehicles with a much lower operating cost than vans/trucks) which allows courier companies to utilise resources efficiently, resulting in better QoS.</p>	<p>b) PAKEJ Service Counters (PSC) – collaborative approach to the development of ‘Pick-up Drop-off (PUDO)’ to increase PUDO coverage and use.</p>
<p>c) Base Price Implementation – Implementing base prices will enable the industry to improve the quality of their services compared to their competitors e.g., investment in digitalisation, training, process improvement etc.</p>	<p>c) Courier Infrastructure Network Map and National Address System – with more holistic data in the courier infrastructure network, MCMC is able to make detailed policy planning based on data.</p> <p>d) Review of Postal Services Licensing Regulations – the revised licensing framework will provide incentives to licensees to become national courier service providers and increase national coverage.</p> <p>e) Incentives to support industry sustainability – more focused incentives to enable industry players to expand the scope of services e.g., cold delivery logistics and digitalisation.</p>

A summary of the NPCIL Report known as the Pelan Accelerator Kurier Negara (PAKEJ), has been made available via the MCMC website.



MCMC Chairman, Dr. Fadhlullah Suhaimi Abdul Malek chaired the virtual National Postal and Courier Industry Lab Townhall which was attended by industry stakeholders on 18 November 2020



Chief Development Officer, En Nizam Arshad delivering a speech virtually, at the closing ceremony of the National Postal and Courier Industry Lab on 4 December 2020

LICENSING AND PERMITS

For the licensing division, MCMC is responsible for the issuance of licences under the following Acts:

- a) *Communications and Multimedia Act 1998 (CMA 1998);*
- b) *Postal Services Act 2012 (PSA 2012); and*
- c) *Digital Signature Act 1997 (DSA 1997).*

LICENCES UNDER CMA 1998

The licensing provision under the CMA 1998 allows the licensee to carry out and manage activities related to the communications and multimedia industry.

There are four (4) licence categories:

- a) Network Facilities Provider - NFP
- b) Network Service Provider - NSP
- c) Content Applications Service Provider - CASP
- d) Applications Service Provider - ASP

Under these four (4) categories, there are two (2) types of licences issued, i.e., the Individual licence and the Class licence.

NETWORK FACILITIES PROVIDER INDIVIDUAL LICENCE [NFP(I)]

This licence is issued to those who own or provide network facilities, such as earth stations, fixed links and cables, radiocommunications transmitters and links, satellite control stations, satellite hubs, space stations, submarine cable landing centres as well as towers, poles, ducts and pits used in conjunction with other network facilities.

NETWORK SERVICE PROVIDER INDIVIDUAL LICENCE [NSP(I)]

Services covered under this Individual licence category include bandwidth services, broadcast distribution services, cellular services, access applications services, space services, switching services and gateway services.

CONTENT APPLICATIONS SERVICE PROVIDER INDIVIDUAL LICENCE [CASP(I)]

This licence is issued to those who provide content applications services, such as satellite broadcasting, subscription broadcasting, free-to-air terrestrial TV broadcasting and terrestrial radio broadcasting.

LICENSING PROFILE

Individual licence under the Communications and Multimedia Act 1998 (CMA 1998)

A total of 67 applications related to Individual licences were approved by the Minister of Communications and Multimedia Malaysia during the year 2020. The type of applications related to Individual licence were as follows:

Types of Applications	Number of Applications
New licence	26
Renewal of licence	35
Variation of licence	5
Transfer of licence	1
Total	67

Types of applications related to Individual licence

NEW APPLICATION AND RENEWAL OF INDIVIDUAL LICENCE

New applications and renewal of Individual licences approved by the Minister throughout the year 2020 were as follows:

Types of Licences	New Applications	Renewal Applications
NFP (I)	17	18
NSP (I)	6	12
CASP (I)	3	5
Total	26	35

Breakdown of new applications and renewal of Individual licences in 2020

In general, new applications for NFP (I) and NSP (I) licences were for the purpose of providing network facilities and services to support highspeed broadband and cellular services in Malaysia. As for CASP (I) licence, licensees were more likely to provide non subscription broadcasting through Digital Terrestrial TV Broadcasting

‘DTTB’ as well as terrestrial radio broadcasting through the digital terrestrial television platform operated by MYTV Broadcasting Sdn Bhd.

APPLICATION FOR TRANSFER OF INDIVIDUAL LICENCE

The Minister has approved one (1) application from the NFP (I) licensee to transfer the Individual licence as in the following details:

No	Transferor	Transferee	Licence Type
1	Globalcomm Solution Sdn Bhd	Globalcomm Telecommunication Sdn Bhd	NFP(I)

Details of the application for transfer of Individual licence

SURRENDER OF INDIVIDUAL LICENCE

A total of nine (9) Individual licensees surrendered their Individual Licences throughout the year 2020, as noted below:

No	Licensee Name	NFP(I)	NSP(I)	CASP(I)
1	Nalfin Realities Sdn Bhd		✓	
2	eTV Multimedia Sdn Bhd			✓
3	Infra X Sdn Bhd		✓	
4	PrIma Communications Sdn Bhd			✓
5	TNB-IT Sdn Bhd	✓	✓	
6	Digistar Rauland MSC Sdn Bhd	✓	✓	✓
7	Telstra Malaysia Sdn Bhd		✓	
8	Measat International (Malaysia) Sdn Bhd	✓	✓	
9	Aries Telecoms (M) Bhd	✓	✓	

List of Individual Licensees who have surrendered their Individual licences

CLASS LICENCE UNDER THE CMA 1998

Registration of Class Licence under the CMA 1998

As of 31 December 2020, a total of 499 applications were registered under the Class Licence as follows:

Licence Type	Number of Licences
NFP(C)	17
NSP(C)	17
CASP(C)	15
ASP(C)	450
Total	499

Number of Class Licence registered in 2020

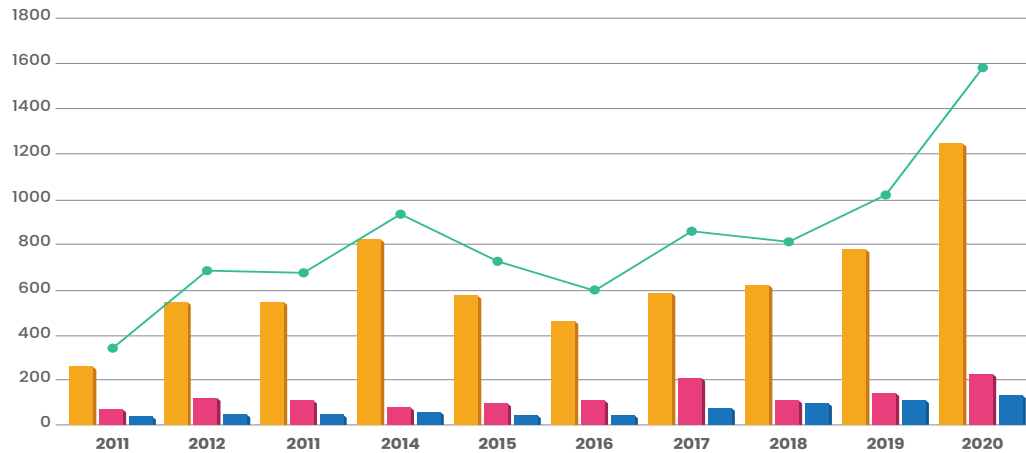
OTHER THAN LICENSING, MCMC IS ALSO RESPONSIBLE FOR THE ISSUING OF STRATEGIC TRADE PERMITS 2010 (STA 2010)





Permit Issuance Under the Strategic Trade Act 2010 (STA 2010)

Although the world has been hit by the COVID-19 pandemic affecting the economy globally, the year 2020 recorded the highest number of Strategic Trade permit issued under STA 2010 by MCMC since its operation began in 2011. With a total issuance of 1,581 Strategic Trade permits in 2020, it showed an increase up to 56.7% compared to the previous year for the export category of strategic goods of computer, telecommunications and information security. This is an indication of positive development in terms of demand and growth in Malaysia's exports.

Of the total, 'Single Use' permit applications continue to be the top choice of Malaysian exporters at 78.18% (1,236), followed by 'Multiple Use' and 'Bulk' permits at 14.04% (222) and 7.78% (123) respectively.

STA Permit Issuance Statistics by MCMC



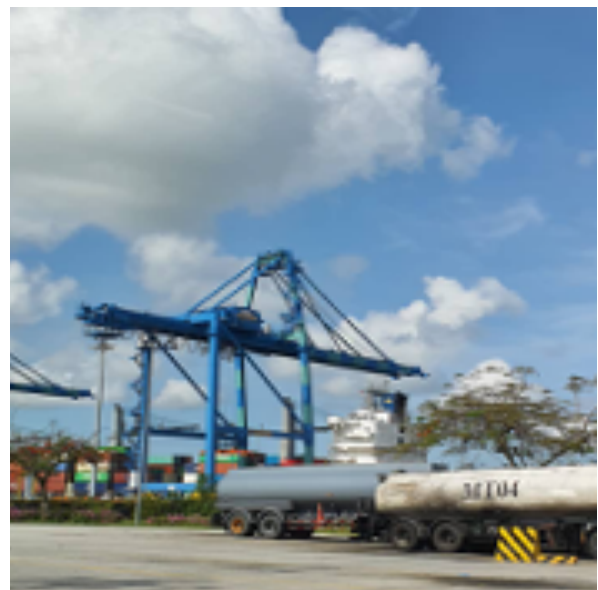
Single		255	537	533	813	567	452	578	616	773	1,236
Multiple Times		56	105	98	66	84	98	203	99	137	222
Bulk		4	33	29	42	35	38	69	89	99	123
Overall Approval		315	675	660	921	686	588	850	804	1,009	1,581

STA permit issuance comparison 2011-2020

ASSESSMENT OF LICENSING COMPLIANCE

The element of compliance assessment is an important aspect in measuring good and effective regulatory framework among industry players. From an objective point of view, the implementation of the assessment session aims to provide a clearer understanding in relation to each strategic goods export transaction, which is conducted in a transparent audit on the relevant documents in accordance and compliant with the STA 2010.

From the assessment, overall, the exporters have a high level of adherence to the best practices. However, there is still room for improvement in the current practices and needs corrective actions by the exporter. While a small number of companies needs minimal corrective actions in keeping the company's trade records.



Container inspection at Westport, Port Klang

COOPERATION PROGRAMME BETWEEN STA RELATED AGENCIES 2010

Good cooperation between Government agencies is a positive approach and highly encouraged in effort to strengthen knowledge on best practices for export control, and further promotes close cooperation between domestic and international agencies. In 2020, MCMC had involved in several programmes or activities with the agencies related to STA 2010, namely:

- a) Meetings of the Strategic Trade Act 2010 (JKPSTA) Evaluation Committee Members which were held three (3) times involving various Government agencies involved in STA 2010. The objective of the JKPSTA meeting is to discuss and review actions as well as to strengthen the implementation of the STA Act 2010 and the re-evaluation of the provision of the Internal Compliance Program (ICP) initiatives to exporters.
- b) Site visit to Tanjung Pelepas Port (PTP) and Johor Port on 10-11 August 2020. The site visit is part of an initiative to engage with its strategic partners, i.e., the Port Authority in collaboration with Government agencies namely the Strategic Trade Secretariat (MITI), Royal Malaysian Customs Department (JKDM), PDRM and the Atomic Energy Licensing Board. In addition, the site visit will be able to identify emerging issues faced by the authorities as well as the industry that needed to be improved as part of trade facilitation efforts.
- c) As the authorised agency to supervise licensing and enforcement activities under STA 2010, MCMC is also involved in the inspections on goods controlled under STA 2010. On 15 December 2020, MCMC participated in the container inspection activities at Westport, Port Klang against a suspicious cargo engaged in trans-shipment activities without permit. The inspection also involves various enforcement agencies such as the Intelligence Division JKDM, Science Research & Defense Technology Institute (STRIDE), MINDEF, PDRM and Westport Auxiliary Police.

REVENUE ASSURANCE

A total of 3,277 notifications were issued in 2020 to individuals and companies for non-reapplication of apparatus assignment and non-registration of Class Licence to operate apparatus or provide any licensable activities, as below:

Types of Notices	Number of Notices
Non-reapplication of AA	3,156
Non-registration of Class Licence	121
Total	3,277

Total notifications issued in 2020

COMPLIANCE AUDIT

Compliance audits were conducted at 11 sites in 2020 to ensure no persons shall use or operate any apparatus without valid apparatus assignment or continue to provide any licensable activities without valid Class Licence as shown below:

No	Compliance Audit	Location	Number of Sites
1	Audit on frequency transmission without AA	Central Region	7
2	Audit on companies for provisioning licensable activities without Class License	Central Region	4
Total			11

Total number of compliance audits conducted in 2020



NUMBERING AND ELECTRONIC ADDRESSING MANAGEMENT

In accordance with Section 179 of the CMA 1998, MCMC has the right to control, plan, administer, manage and allocate electronic numbering and addressing for network services and application services.

Category	Number Type	
Geographic Number	Public Switched Telephone Network (PSTN)	
Non-geographic Numbers	Short Numbers	CKSC
		CISC
		ISC
		CSC
	Special Service Numbers (SSN)	1-300
		1-800
		1-700
Other numbers	Mobile Number	
	International Mobile Subscriber Identity (IMSI)	MNC
	Signalling Point Codes	ISPC
		NSPC
Routing Number		
Subtotal		
Total		

NUMBERING ASSIGNMENT

The numbering assignment according to the categories used for network systems and application services in Malaysia are as follows:

- a) Geographic Numbers
- b) Non-geographic Numbers
- c) Other Numbers

A total of 3,235,001 new number assignments were made in 2020 while 3,500,024 for mobile number assignments were surrendered. This brought the total numbering allocation in 2020 to 149,408,245

CKSC	Commonly Known Short Code
CISC	Common Inter-carrier Short Code
ISC	Independent Short Code
CSC	Carrier Selection Code
1-300	Toll Free Service Numbers
1-800	Free phone Service Numbers

1-600	Premium Service Numbers
1-700	Call Forwarding Service Numbers
MNC	Mobile Network Code
ISPC	International Signalling Point Codes
NSPC	National Signalling Point Codes

Details of numbering assignments for the year 2020

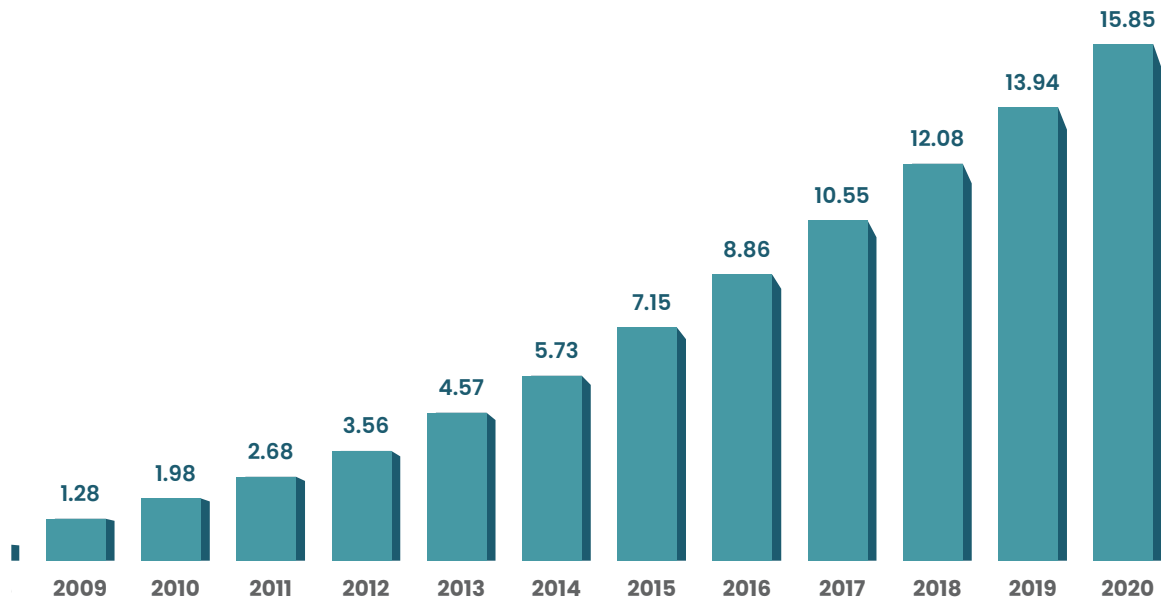
	Existing Assignments (Data until 1 January 2019)	New Assignment	Surrendered Number
	36,460,000	135,000	
	9	0	-
	15	1	-
	206	0	-
	3	0	-
	100,000	0	-
	130,000	0	-
	20,000	0	-
	112,960,000	3,100,000	3,500,024
	97	0	-
	41		-
	2,890		-
	7	0	-
	149,673,268	3,235,001	3,500,024
		149,408,245	

Source: NUMSYS, January 2021

MOBILE NUMBER PORTABILITY (MNP)

As of 2020, a total of 15.85 million numbers were successfully ported.

Total Mobile Number Portability (2008-2020)



Cumulative mobile number portability transactions (2008-2020)

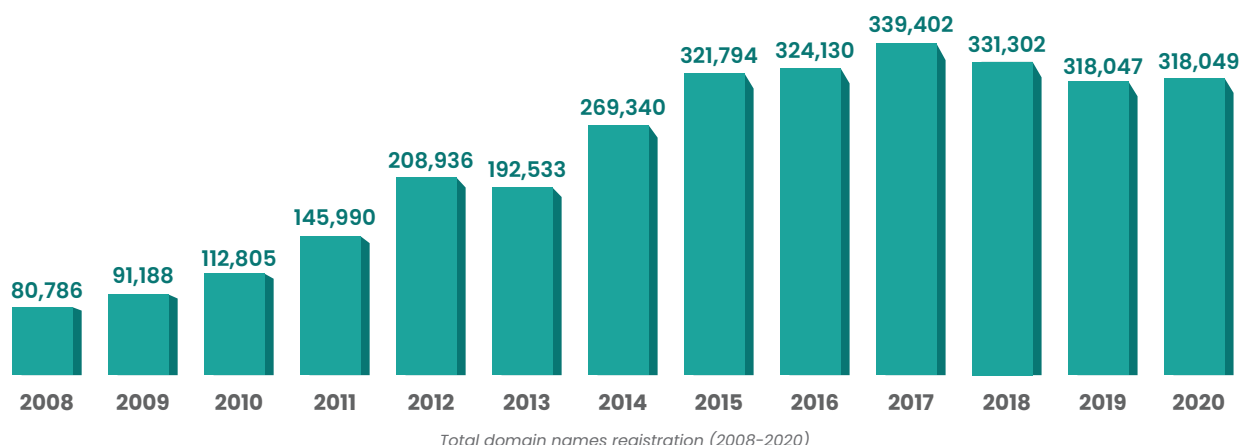
ELECTRONIC ADDRESSING

Under Section 181 (1), MCMC has appointed MYNIC Berhad (MYNIC) to manage and maintain the integrated electronic address database in Malaysia which includes 11 categories of '.my' domain names as follows:

- | | | | |
|----------------|--------------------|-------------------|----------------|
| 1
.my; | 2
.com.my; | 3
.net.my; | 4
.org.my; |
| 5
.gov.my; | 6
.edu.my; | 7
.mil.my; | 8
.name.my; |
| 9
.coop.my; | 10
.biz.my; dan | 11
.<state>.my | |

As of 31 December 2020, a total of 318,049 new domain names had been registered.

Domain Names Registration (2008–2020)



E-COMMERCE WEBSITE CERTIFICATION

Under the Income Tax Regulations 2003 (Reduction for website development), Inland Revenue Board of Malaysia provides tax reduction incentives for applicants who meet the criteria and conditions for developing or owning an e-commerce website in Malaysia.

MCMC is the agency that performs the verification, covering the website validity, technical and security aspects equipped with the e-commerce platform through an application made to MCMC. As of 2020, MCMC received a total of 16 applications, of which six (6) were approved, while 10 were rejected.

DIGITAL SIGNATURE ACT 1997

Under the Digital Signature Act 1997 (DSA 1997), MCMC is responsible to administer, enforce, implement and give effect to the provisions of the Act. Among the key roles of MCMC are monitoring and supervising the activities of all Certification Authority (CA) licensees who issue digital certificates enabling the use of digital signature services.

Other services covered under the DSA 1997 include a Certificate of Recognition for Repositories (Repository) and a Certificate of Recognition for Date/Time Stamp Services (DTS).

As of the third quarter of 2020, a total of 15.39 million digital certificates had been issued by CA. The following is a list of licensees and recognition holders appointed and authorised by MCMC:

No.	List of Licensees and Recognition	Type of License/Recognition		
		License Certification Authority	Certificate of Recognition for Repositories	Certificate of Recognition for Date/Time Stamp Service
1	Pos Digicert Sdn Bhd	✓	✓	✓
2	MSC Trustgate.Com Sdn Bhd	✓	✓	✓
3	Telekom Applied Business Sdn Bhd	✓	✓	-
4	Raffcomm Technologies Sdn Bhd	✓	✓	✓

List of Licensees and Recognitions

COMPETITION, ACCESS AND MONITORING

COMPETITION

MCMC is responsible for reviewing and formulating regulatory policies and instruments on competition related matters, including investigating and assessing anti-competitive conducts to ensure that competition in the communications market is fair and equitable. In addition, MCMC also monitors the rates charged for communications services.

1

Complaints on Anti-Competitive Behaviour

The provisions on General Competition Practices are set out in Part VI, Chapter 2 of the CMA 1998. One of the key responsibilities of the Competition Department is to monitor and resolve competition complaints so that anti-competitive behaviour does not affect healthy competition in the market. In 2020, MCMC received a total of 53 competition complaints from consumers channelled via the MCMC Department of Consumer Protection. Most of the complaints were on exclusivity in provisioning of broadband services, and high prices. In view of the increasing number of complaints on exclusivity, in August 2020, MCMC in collaboration with the Malaysia Competition Commission had jointly issued a press release. The said press release warned parties entering into exclusivity arrangements that regulatory action will be taken against them in accordance with the powers provided for under the CMA 1998 and/or the Competition Act 2010.

2

Accounting Separation

Accounting separation has been implemented in Malaysia since 2013 on vertically integrated operators to increase the level of transparency to enable MCMC to identify anti-competitive practices. With the implementation of accounting separation, service providers offering wholesale and retail services are required to submit regulatory financial statements (RFS) in accordance to the templates in the Guidelines on Implementation of Accounting Separation in Malaysia (revised on 1 November 2016). In 2020, MCMC received the RFS from seven (7) licensees and these reports have been reviewed to identify the presence of anti-competitive practices.

3

Retail Rate Monitoring

Rate Regulation is set out in Part VIII, Chapter 4 of the CMA 1998. Section 198 in particular, outlines the principles of rate setting. MCMC monitors the retail rates offered by licensees to ensure that they are in line with the principles of rate setting. In addition, retail rate monitoring is also important to gauge the overall state of competition in the market and identify anti-competitive pricing practices. In 2020, MCMC monitored 59 licensees who offered various retail services to consumers.

The COVID-19 pandemic has led to an increase in demand for fixed broadband services. Between 2019 to 2020, fixed broadband subscription increased by 13%. As of 2020, 52% of total fixed broadband subscriptions are on speeds 100 Mbps and above.

In the ASEAN region, Malaysia ranked second in terms of prices for fixed broadband packages with speeds of 30 Mbps and 100 Mbps (both after Vietnam), and 300 Mbps (after Thailand), while for 500 Mbps package, Malaysia ranked third after Singapore and Thailand. Prices for mobile broadband services in the ASEAN region are also competitive.

ACCESS

The instruments that have been issued by MCMC on access and interconnection in Malaysia include the following:

- (a) Commission Determination on Access List, Determination No. 2 of 2015 (Access List) dated 24 August 2015 which was effective on 1 September 2015;
- (b) Commission Determination on the Mandatory Standard on Access, Determination No. 3 of 2016 (Mandatory Standard on Access) dated 8 December 2016 which was effective on 1 January 2017; and
- (c) Commission Determination on the Mandatory Standard on Access Pricing, Determination No. 1 of 2017 (Mandatory Standard on Access Pricing) dated on 20 December 2017 which was effective 1 January 2018.

One of the main activities carried out was to conduct briefing sessions for the licensees on the access framework as well as their roles and responsibilities. In 2020, MCMC held four (4) briefing sessions for 18 new individual licensees.

MCMC plays an important role in ensuring the licensees' compliance with the CMA 1998 as well as the instruments. Firstly, MCMC reviewed more than 55 access agreements for registration as required under Section 150 of the CMA 1998. Secondly, MCMC also reviewed more than 21 Reference Access Offers that have been published by the access providers on their respective websites. Thirdly, MCMC received and reviewed more than 104 reports to ensure compliance with the relevant instruments.

At the same time, MCMC also received 12 complaints related to the provision of facilities and services under the Access List, and/or compliance with the Mandatory Standard on Access and the Mandatory Standard on Access Pricing. MCMC has also played a role in facilitating negotiations between licensees to ensure effective competition and in turn guarantee long-term benefits of the end users.

In the fourth quarter of 2020, MCMC initiated a review of the Access List and the Mandatory Standard on Access. A total of 22 information gathering sessions involving 51 licensees were held. This review is expected to be completed in 2022.

MONITORING

Monitoring of New Individual Licensees

MCMC constantly monitors compliance of new individual licence holders under the CMA 1998 with the following special licence conditions:

- a) To commence the provision of facilities or services within 12 months from the date the licence was granted;
- b) To deploy the facilities/services in accordance with their Detailed Business Plan (DBP)/Rollout Plan; and
- c) To meet the minimum requirement of 30% Bumiputera shareholding and the maximum 49% foreign shareholding.

Throughout 2020, a total of 15 compliance site visits were conducted to the individual licensees' offices and sites to ensure that the licensees have successfully commenced the facilities or services within 12 months from the date the licence was granted and the deployment of facilities or services are in accordance with their respective DBP/Rollout Plan commitments. The number of compliance site visits were less compared to 36 site visits conducted in the previous year due to the MCO implemented by the Government to curb the spread of COVID-19 pandemic in Malaysia.

Nevertheless, the deployment of facilities/services by new individual licensees was still monitored based on the Rollout Questionnaires and the Half Yearly Progress Reports submitted by the licensees. The table below shows the list of compliance site visits conducted in 2020.

List of Compliance Site Visits Conducted in 2020

No	Licensee Name	Type of Licence	Month
1	Inforient Infrastructure Sdn Bhd	NFP(I)	January
2	Promajadi Sdn Bhd	NFP(I)	February
3	Kibaran Pelangi Sdn Bhd	NFP(I)	
4	Syakim Technologies Sdn Bhd	NFP(I)	
5	Galaxie Towers Sdn Bhd	NFP(I)	July
6	MSA Resources Sdn Bhd	NFP(I) & NSP(I)	
7	Celltrax Technologies Sdn Bhd	NFP(I)	August
8	XMT Technologies Sdn Bhd	NFP(I) & NSP(I)	
9	MNF Infra Sdn Bhd	NFP(I)	
10	Smartsel Sdn Bhd	NFP(I) & NSP(I)	
11	Fenomena Majujaya Sdn Bhd	NFP(I) & NSP(I)	September
12	NST Datacara Sdn Bhd	NFP(I)	
13	Awesome Broadcasting Sdn Bhd	CASP(I)	
14	Riyyalcomm Sdn Bhd	NFP(I)	October
15	Volksbahn Technologies Sdn Bhd	NFP(I) & NSP(I)	

List of compliance site visits conducted in 2020



Telecommunication tower

There were also licensees who had applied for an extension of time due to failure to commence their facilities/services within the required timelines. These applications were considered and approved based on the following justifications provided:

- a) Considerable amount of time taken to obtain permit approvals from local authorities; and
- b) The current economic situation due to COVID-19 pandemic and financial constraints have forced them to change their business plan or to defer commencement of their facilities/services.

Table below shows the list of individual licensees who have applied for an extension of time to commence their facilities or services:

No	Licensee Name	Type of Licence
1	Shorefield Communications Sdn Bhd	NFP(I) & NSP(I)
2	Rich Infra Sdn Bhd	NFP(I) & NSP(I)

List of new individual licensees who had applied for extension of time to commence facilities/services

In relation to compliance with the special licence condition on the minimum 30% Bumiputera shareholding requirement, three (3) applications for an extension of time were considered and approved. The table below shows the list of licensees who had applied for an extension of time to meet the aforesaid special licence condition:

No	Licensee Name	Type of Licence
1	Orissa Wicom (M) Sdn Bhd	NFP(I)
2	Nalfin Realities Sdn Bhd	NFP(I)
3	Red One Network Sdn Bhd	NSP(I)

List of individual licensees who had applied for an extension of time to meet the minimum 30% bumiputera shareholding requirement

In December 2020, MCMC had recommended to the YB Minister (KKMM) to cancel the licences granted to eight (8) licensees who had failed to comply with the special licence condition to commence their facilities/services within the required timeline. The eight (8) licensees will be issued a Cancellation Notice and may submit an appeal to the Minister within 30 days from the date of notice.

One (1) CASP(I) licensee namely Awesome Broadcasting Sdn Bhd successfully rolled out its Free-to-Air (FTA) services on the Digital Terrestrial Television Broadcasting (DTTB) platform. The new channel, branded as "Awesome TV" aired on 3 August 2020 on Channel 112 on MyFreeview. There are nine (9) more CASP(I) licensees who are expected to provide their services on the DTTB platform by 30 June 2021.

STANDARDS DEVELOPMENT

MCMC is responsible for developing technical standards or codes that cover aspects such as network interoperability and safety of network facilities through its designated industry forum, Malaysian Technical Standards Forum Berhad.

In accordance with the provisions of the Communications and Multimedia Act 1998 (CMA 1998), MCMC has designated the Malaysian Technical Standards Forum Berhad (MTSFB) as its technical standards forum on 27 October 2004. MTSFB is responsible for developing technical codes that cover the aspects such as network

interoperability and safety of network facilities. Eleven (11) technical codes have been successfully registered as Voluntary Industry Codes under Section 95 of the CMA 1998 throughout 2020. The details of these documents are as listed in the table below.

No	Document
1	MCMC MTSFB TC T007:2020 Short Range Devices (SRD) – Specification (Second Revision)
2	MCMC MTSFB TC T011: 2020 – Digital Terrestrial Television (DTT) Broadcast Service Receiver – Common Test Suite (Second Revision)
3	MCMC MTSFB TC G002:2020 – Digital Terrestrial Television (DTT) – Hybrid Broadcast Television Middleware Profile (Second Revision)
4	MCMC MTSFB G022:2020 – Internet of Things (IoT) – High-level Functional Architecture
5	MCMC MTSFB TC G023:2020 – Hydrogen Storage and Safety with Fuel Cell as Power Generator for Information, Communication and Technology (ICT) Infrastructure
6	MCMC MTSFB TC G024-2020 – Fixed Network Facilities – In-building and External
7	MCMC MTSFB TC G025-1:2020 – Basic Civil Works – Part 1: General Requirements
8	MCMC MTSFB TC G025-2:2020 – Basic Civil Works – Part 2: Open Trench
9	MCMC MTSFB TC G025-3:2020 – Basic Civil Works – Part 3: Micro Trench
10	MCMC MTSFB TC G025-4:2020 – Basic Civil Works – Part 4: Horizontal Directional Drilling (HDD)
11	MCMC MTSFB TC G026:2020 – Radio-communications Network Facilities – Street Furniture

List of technical codes registered in 2020



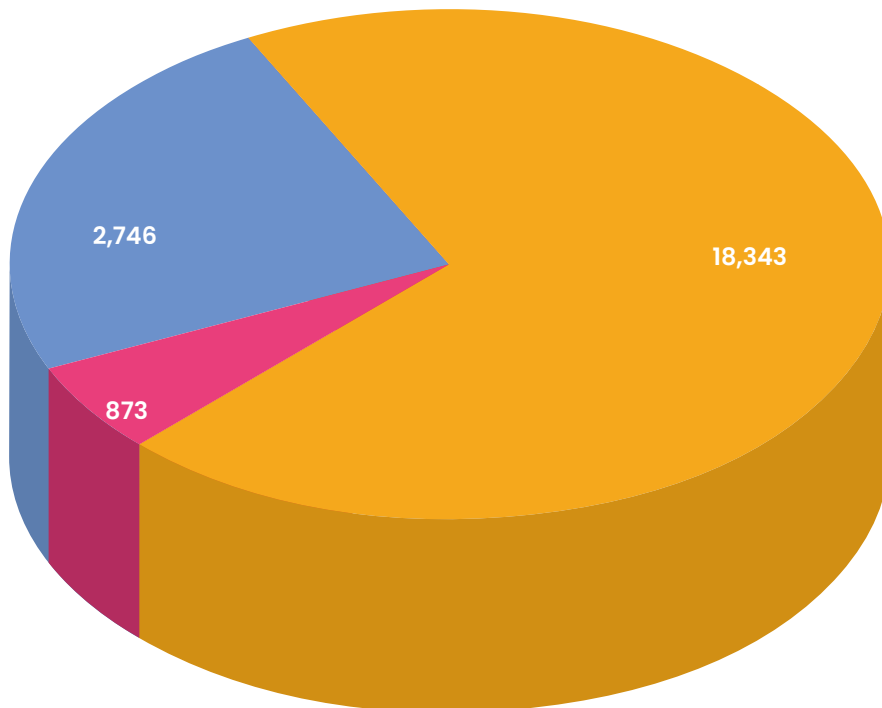
MONITORING AND NETWORK SECURITY

MCMC plays an important role in ensuring the National Policy Objectives stipulated in the Communications and Multimedia Act 1998 (CMA 1998), which is to ensure information security and reliability as well as network integrity, are achieved through the implementation of planned activities that focus on security, and reliability aspects of the network.

The evolution of current technologies and the emergence of social media networks pose increasing challenges to MCMC’s effort in regulating Internet content and curbing new media abuses.

NETWORK MEDIA ABUSE COMPLAINTS

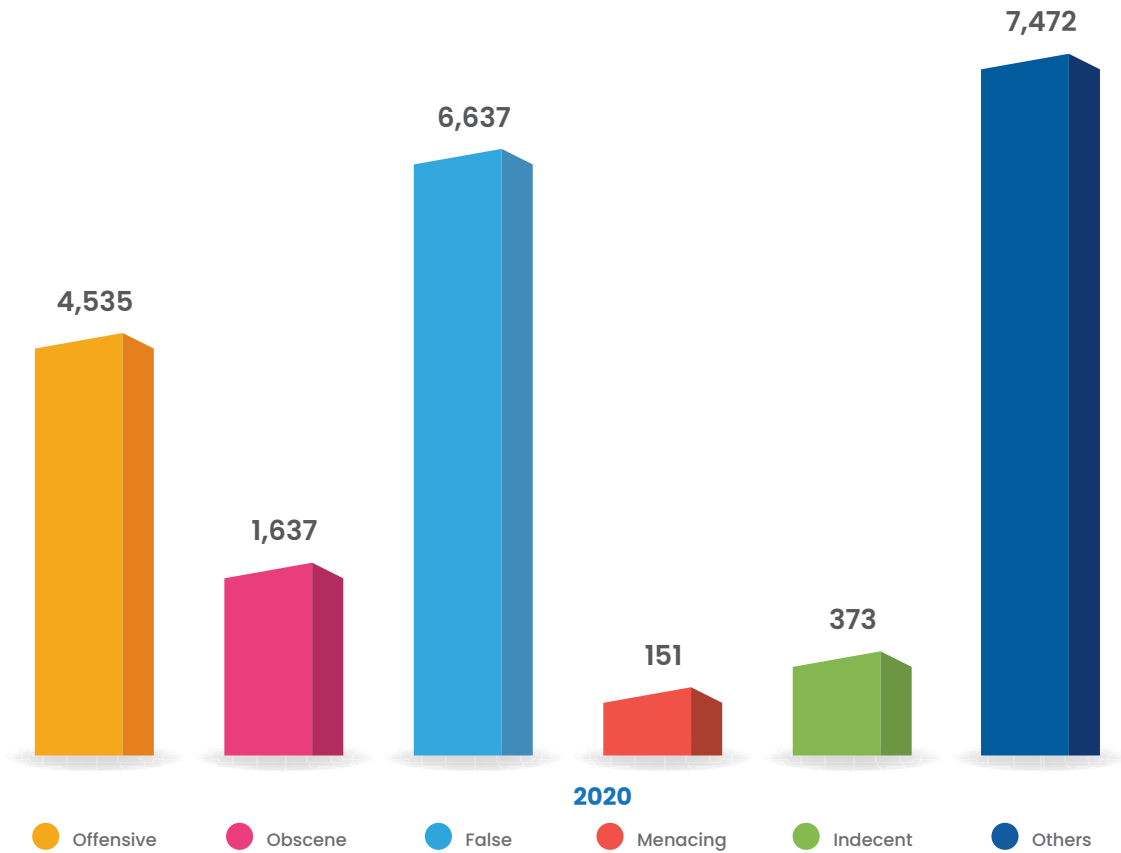
In 2020, MCMC received a total of 21,962 complaints from the public regarding abuse of new media, including social media, a significant increase from 10,963 in 2019. The higher number of complaints in 2020 was mostly due to the dissemination of unverified news regarding the spread of COVID-19. Below is the breakdown of complaints received by MCMC, based on platform type:



Total Complaints: 21,962 Social Media E-mail Website/ Blog/ Forum

Complaint statistics based on platform type (2020)

The following, a breakdown of complaints based on the category of abuses and offences in 2020:



Statistics on complaints according to the types of abuses/offences for 2020

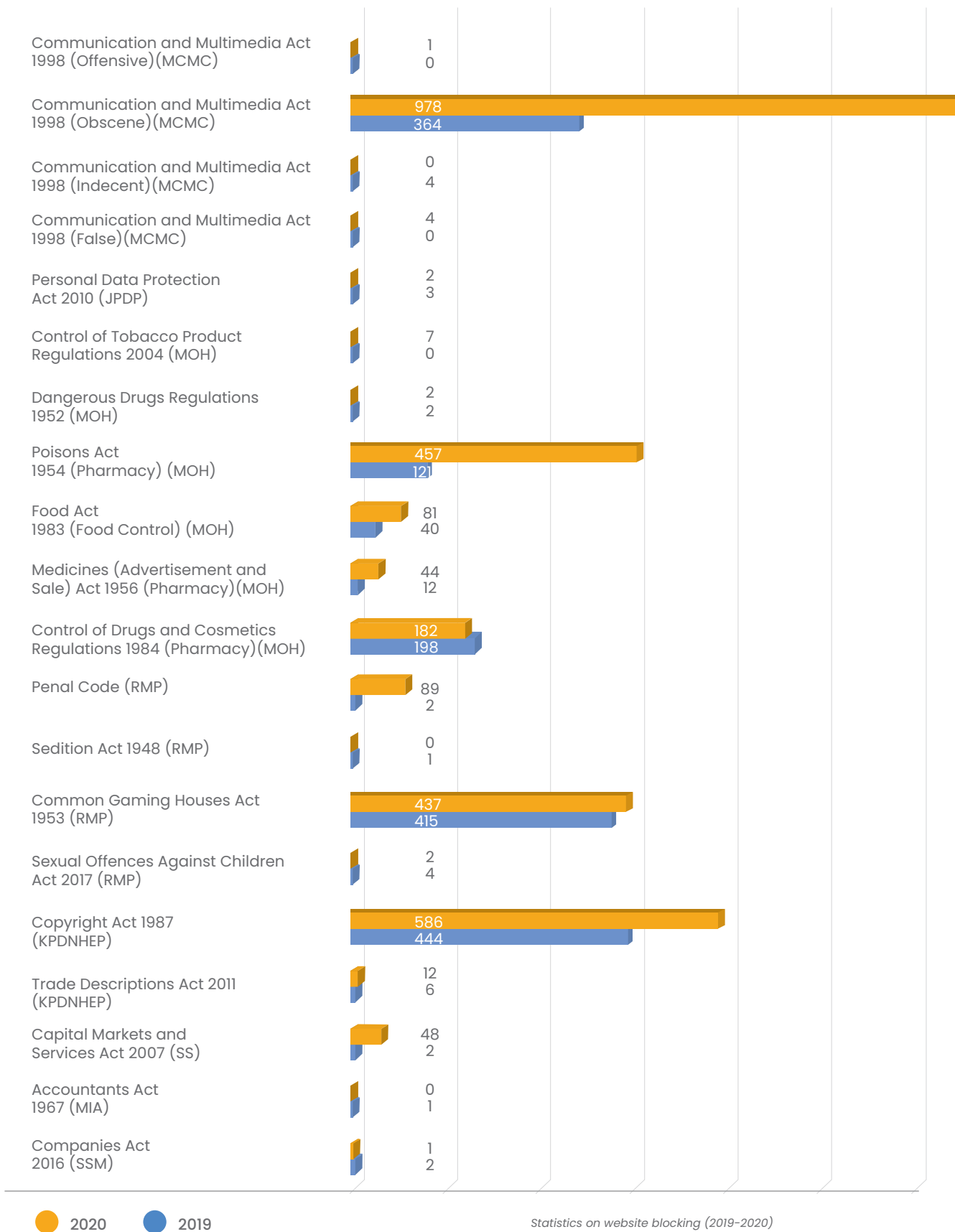


REGULATING NEW MEDIA CONTENT

The highest number of complaints received (7,472) involved new media abuse which have been referred to PDRM such as hacking, fraud, gambling; and misuse of personal information.

MCMC joined forces with the respective Ministries and enforcement agencies and provided technical assistance in accordance with the requirements, which included redirecting access to websites that violate the written laws of Malaysia, in coordination with the Internet Service Providers (ISPs).

The following are statistics on website redirections from 2019 to 2020, categorised according to applicable written laws of Malaysia:



In 2020, the highest number of website redirection recorded was due to pornographic website blocking with a total of 978 websites, followed by a total of 586 websites redirected for copyright infringement.

ACTIONS AGAINST THE DISSEMINATION OF FAKE NEWS

The “Freedom of Speech but Not Freedom to Lie” campaign and the [Sebenarnya.my](#) portal are two key initiatives that are spearheading MCMC’s efforts to educate the people to be ethical when disseminating news.

The Internet and social media help speed up the process of news and information delivery. It serves as the main medium for Malaysians to keep updated with the current situation and to strengthen relationships among family and friends. However, Malaysians should be more careful when consuming information from the Internet because there are a number of fake news designed to take advantage of the current hot or trending issues being circulated solely to mislead netizens.

This situation is of great concern to MCMC as there are fake news that can provoke and create hatred among the diverse communities in Malaysia. This is dangerous as it can affect national unity and stability.

MCMC, thus implemented the “Freedom of Speech but Not Freedom to Lie” campaign, for a period of three (3) months from July to September 2020. The campaign emphasised on the importance of Malaysians being responsible with their right to freedom of expression in order to maintain national harmony. Its purpose was to form a moral compass, create a culture of responsibility and evoke a balanced access to freedom of speech and the truth.

The campaign also promoted positive values that Internet users should practice such as ‘speaking the truth’, ‘evaluate wisely’, ‘be mindful when speaking’. The campaign also stressed on the impact of fake news on society. MCMC hopes that freedom of speech in the community can be formed on the right basis and that people would practice it correctly and more responsibly.

The public should not, for example, simply create and spread fake news, upload or disseminate content that may violate any provisions of written laws in the country, or make offensive comments that could cause disharmony among Malaysians.

The slogan “Freedom of Speech but Not Freedom to Lie” encourages Malaysians to be free to state their opinions or thoughts as long as they do not violate the laws enacted under Article 10 (1) (a) of the Federal Constitution. Freedom of speech is not a “full licence” for any individuals to act as they will. The main message of this campaign is that consumers should not spread lies (Don’t Share Lies), promote the [Sebenarnya.my](#) portal and remind Malaysians that creating and disseminating false or unverified content is offensive and unacceptable. This campaign furthered the efforts started through the [Sebenarnya.my](#) portal, which was launched on 14 March 2017, in an effort to curb the spreading of fake news. The [Sebenarnya.my](#) portal has become the national one-stop centre for the public to check and channel information on unverified news received online.

The statistics on public visits to the portal from January 2020 to December 2020 was 155.04 million with around 12.92 million hits every month. The portal also received information from the public about unverified news, which will then be referred to the relevant Government agencies for further attention and action. In 2020, there was a sharp increase in the number of hits to the portal, as well as the distribution of information, due to the spread of unverified information/news regarding the COVID-19 pandemic that is still plaguing our country.

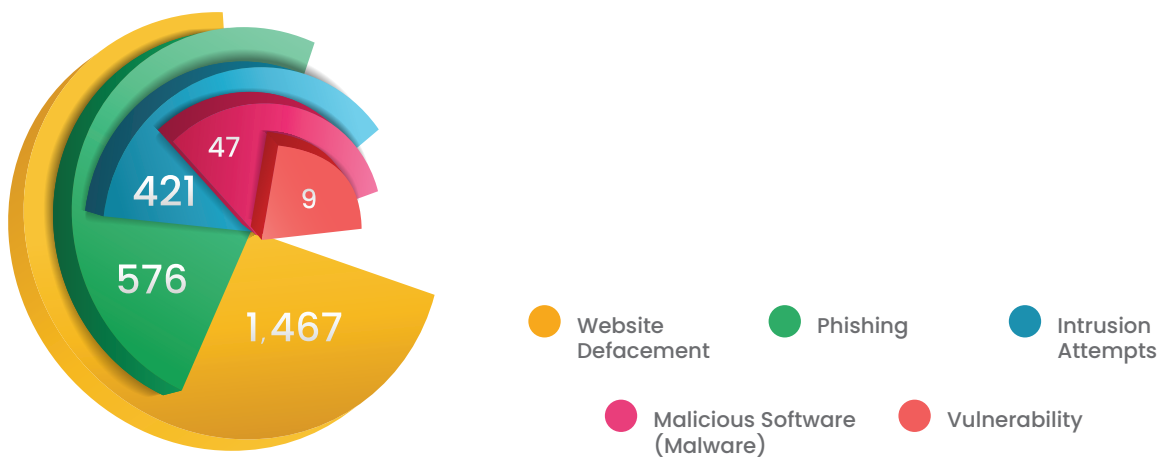
The top five (5) most viewed articles by the public on the Sebenarnya.my portal regarding the COVID-19 issue:

No	Article Title	Views	Article Link
1	"4 Nota suara yang menggunakan nama Majlis Keselamatan Negara Dakwa Darurat akan diisytihar adalah palsu"	40,403	https://sebenarnya.my/4-nota-suara-yang-menggunakan-nama-mkn-dakwa-darurat-akan-diisytihar-adalah-palsu/
2	"Borang permohonan bantuan ihsan COVID-19 Negeri Johor yang tular di media sosial bukan untuk edaran awam"	34,992	https://sebenarnya.my/borang-permohonan-bantuan-ihsan-COVID-19-negeri-johor-yang-tular-di-media-sosial-bukan-untuk-edaran-awam/
3	"Pelajar tingkatan 1 hingga 4 akan kembali ke sekolah pada 12 Julai 2020 adalah palsu"	32,426	https://sebenarnya.my/pelajar-tingkatan-1-hingga-4-akan-kembali-ke-sekolah-pada-12-julai-2020-adalah-palsu/
4	"Tiada SOP PKPKP (Perintah Kawalan Pergerakan Keluarga) dikeluarkan oleh KKM"	28,359	https://sebenarnya.my/tiada-sop-pkpkp-perintah-kawalan-pergerakan-keluarga-dikeluarkan-oleh-kkm/
5	Pemberian elaun sebanyak rm3,000 kepada sesiapa yang dibuang kerja semasa tempoh PKP daripada PERKESO adalah Palsu"	25,971	https://sebenarnya.my/pemberian-elaun-sebanyak-rm3000-kepada-sesiapa-yang-dibuang-kerja-semasa-tempoh-pkp-daripada-perkeso-adalah-palsu/

INCIDENT HANDLING

MCMC through the Network Security Centre (NSC) handled a total of 2,520 network security incidents throughout 2020.

The category with the highest number of incidents handled was Website Defacement with 1,467 incidents, followed by Phishing with 576 incidents. The breakdown of the incidents is as shown in the chart below:



Incident handling breakdown

SECURITY ADVISORY

MCMC through the Network Security Centre also undertakes measures to promote security vigilance among service providers under the communications and multimedia sector through the security advisory initiatives.

Throughout 2020, a total of 19 security advisories were issued for the following issues, incidents and topics:

1

Windows 7, Windows Server 2008, Windows Server 2008 R2 End of Support

2

Cryptographic Vulnerability in Microsoft Windows Clients and Servers

3

WhatsApp Desktop Vulnerabilities

4

COVID-19 Fraud and Scams

5

Citrix ADC and Gateway Vulnerability

6

WhatsApp Buffer Overflow Vulnerabilities

7

Video Conferencing Security Recommendation

8

Malicious Android Application Imitating Official Application

9

Vulnerability in EXIM Software

10

Call Stranger Vulnerability

11

Authentication Bypass Vulnerability in Palo Alto Networks

12

Remote Code Execution (RCE) Vulnerability in F5 BIG-IP Traffic Management User Interface (TMUI)

13

Windows DNS Server Remote Code Execution Wormable Vulnerability

14

Fake Malware Alert on Mac upon accessing website

15

Netlogon Remote Protocol Vulnerability

16

Ransom DDoS (Distributed Denial of Service) Attack

17

Business Email Compromise Campaign

18

The SolarWinds Supply Chain Attack

19

Defacement Prevention Guide

CYBER DRILL

Cyber drill is a simulated exercise in handling and countering cyber security incidents which is implemented with the participation of various stakeholders and key agencies at domestic and international levels.

In 2020, MCMC participated in three (3) cyber drills as follows:

1

ASEAN Computer Emergency Response Team (CERT) Incident Drill (ACID) 2020

MCMC represented Malaysia in the 15th ACID cyber drill exercise which was held on 7 October 2020. ACID cyber drill is an annual event organised to test incident handling procedures, and strengthen the cooperation among CERT groups within ASEAN member states and key dialogue partners. The theme for 2020 was "Malware Campaign Leveraging the Pandemic" where participants were required to address simulated incidents involving malware that exploits the COVID-19 pandemic situation.

2

International Telecommunication Union (ITU) Global Cyber Drill 2020

MCMC represented Malaysia in the ITU Global cyber drill held from 3-5 November 2020. This drill exercise focused on the various incidents faced by incident response teams and stakeholders in their day-to-day operations. These include technical analysis, systems and network forensics, and lateral movement; in addition to the challenges of handling Operations Technology (OT) related incidents.

3

International Telecommunication Union (ITU) Pacific Cyber Drill 2020

MCMC represented Malaysia at the ITU Pacific cyber drill which was held from 8-10 December 2020. In this drill exercise, several simulations as well as incident and threat coordination processes were relayed by ITU experts to the participants through the Cyber Range platform provided. The drill helped participants gain deeper insights into the tactics used in cyber-attacks, and the procedures and measures in handling such attacks.

SECURITY ASSESSMENT

MCMC also performed security assessments focusing on the management and protection of information, as well as the protection of important and critical national infrastructure installations.

a) Security Assessments on Critical Installations, Protected Areas and Protected Places

MCMC continues its close cooperation with the Chief Government Security Office (CGSO) under the Prime Minister's Department of Malaysia, via the Critical Installations Inspectorate (TNSP) and the Security Assessment Sub-Committee (JKPK).

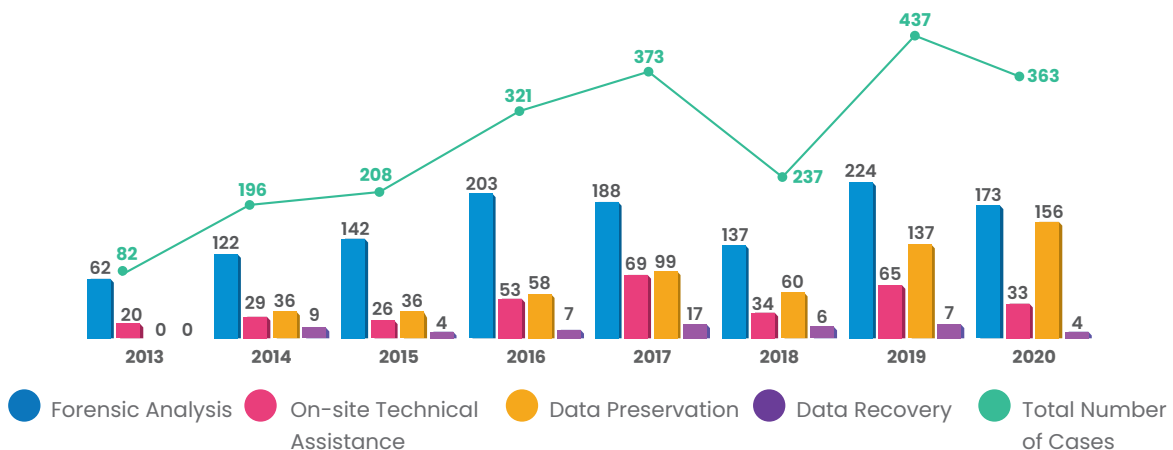
Physical and information security assessments were jointly conducted on important and critical national infrastructure installations, including telecommunications and broadcasting infrastructures. The assessments were undertaken to ensure that the level of security readiness continues to be in good order. A total of thirty-two (32) assessments were performed in 2020, and in general, the level of security was found to be satisfactory.

DIGITAL FORENSICS

The Digital Forensics Department of MCMC has been providing professional and independent Digital forensics services conducted by competent analysts employing the latest methods and updated equipment.

The laboratory's Standard Operating Procedures are in conformity with MS ISO/IEC 17025:2007 General Requirements for the Competence of Testing and Calibration Laboratories has added value to MCMC's integrity and professionalism. MCMC offers expert consultancy and services in areas of forensic analysis, on-site technical assistance, data preservation, data recovery and advisory services pertaining to electronic evidence.

A total of 363 cases were received in 2020, including cases under the jurisdiction of MCMC's Enforcement and Investigation Department as well as those submitted by local law enforcement agencies. The types of cases varied from the spreading of fake news on the COVID-19 pandemic, dissemination of confidential Government information, and abuse of network services, to the abuse of social media with obscene and seditious content.



Statistik Kes Mengikut Kategori Perkhidmatan Digital Forensik dari tahun 2013 sehingga 2020

In 2020, total number of cases received by categories include forensic analysis, 224 cases (46.8 %); followed by data preservation, 156 cases (43%); on-site technical assistance, 33 cases (9.1%); and data recovery, 4 cases (1.1 %).

In 2020, the department successfully maintained the quality management of laboratory systems by adding a new scope of assessment, namely the scope of data preservation in accordance with regulations under the Malaysian Laboratory Accreditation Scheme and MS ISO 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories.

INTERNATIONAL COORDINATION

Throughout 2020, MCMC has continued to lead, coordinate and implement its international obligations, even with the global COVID-19 pandemic outbreak in February 2020.

In early 2020, MCMC officials attended several international meetings in person. Following the imposition of international travel restrictions, meetings were either cancelled, postponed or in most cases, conducted online instead. The following is a summary of MCMC international activities for 2020:

Month	Number and Type of Planned Activities		MCMC Involvement Status		
	Meeting/ Symposium/ Conference	Workshop/ Training	Physical Attendance	Online	Cancelled/ Postponed
January	-	1	1	-	-
February	7	-	5	1	1
March	6	1	-	-	7
April	3	-	-	-	3
May	1	-	-	1	-
June	1	1	-	2	-
July	7	-	-	7	-
August	1	-	-	1	-
September	6	-	-	6	-
October	9	-	-	9	-
November	15	2	-	17	-
December	12	2	-	14	-

ASEAN

Malaysia took over Chairmanship of the ASEAN Digital Ministers' Meeting (ADGMIN), and the first ASEAN Digital Senior Official's Meeting (ADGSOM) for the 2020/2021 work cycle. ADGMIN and ADGSOM are annual ASEAN meetings formerly known as TELMIN (ASEAN Telecommunications and Information Technology Ministers' Meeting) and TELSOM (ASEAN Telecommunications and Information Technology Senior Officials' Meeting). The name change is in line with the role of information and communication technology as a catalyst for digital transformation in other sectors.

The outbreak of the COVID-19 pandemic and the ban on international travel, however, led to the postponement of the ADGMIN and ADGSOM. The meetings will now be held from 18-22 January 2021. This inaugural ADGMIN and ADGSOM will also be conducted virtually for the first time, to be chaired by YB. Dato' Saifuddin Abdullah, Malaysia's Minister of Communications and Multimedia for ADGMIN. Meanwhile, YBhg. Dato' Sri Haji Mohammad Mentek, Secretary General of Ministry of Communications and Multimedia, Malaysia, will chair the ADGSOM.

The meeting, themed “ASEAN: A Digitally Connected Community”, will be attended by all ASEAN Member States as well as ASEAN dialogue partners, namely, the United States of America, China, India, Japan, the Republic of Korea, the International Telecommunication Union (ITU) and the European Union (EU). The meeting discusses various issues and plans for the ASEAN digital landscape after COVID-19. The ASEAN Digital Master Plan 2025 which is undertaken by MCMC in collaboration with ASEAN Member States, will be launched on 22 January 2021. Finally, the Putrajaya Declaration will also be endorsed.

From 9-12 November 2020, MCMC also attended the virtual ASEAN Telecommunications Regulators’ Council (ATRC) meeting.

UNIVERSAL POSTAL UNION

In February 2020, an MCMC delegation of four officers from the Postal and E-Commerce Department, and International Affairs Department, together with KKMM delegation, attended the UPU Council of Administration Meeting (UPU CA) number 1-2020 on 24-28 February 2020 at the UPU Headquarters in Berne, Switzerland.

The bi-annual meeting gathered delegations of UPU member countries to discuss on global postal issues. The Malaysian delegation was led by Encik Shakib Ahmad Shakir, Deputy Secretary General (Strategic Communication and Creative Industries) of KKMM.

Outside of the meeting, the Malaysian delegation, with the cooperation of the Malaysian Embassy in Switzerland, hosted an afternoon tea reception, with Her Excellency Ambassador Sharrina Abdullah as the honorary host.

Malaysia is contesting for the UPU Council of Administration (CA) seat for the 2020-2024 term. However, due to the COVID-19 pandemic, the CA voting session that was originally scheduled in August 2020 had to be postponed to a date yet to be confirmed.

TELECOMMUNICATIONS AND INFORMATION WORKING GROUP, ASIA-PACIFIC ECONOMIC COOPERATION (APEC TELWG)

MCMC on behalf of Malaysia hosted the virtual plenaries of the 61st Meeting of the APEC TELWG (APEC TEL61) on 14- 15 October 2020. The plenaries were held on Malaysia time (UTC +8), cutting across 13 different time zones between the 17 participating APEC member economies. The 2-day virtual plenary meetings were preceded by the TELWG Steering Groups’ meetings which were virtually and separately held on 2-9 October 2020.

MCMC, on behalf of Malaysia, has been leading the coordination for the development of the APEC TEL Strategic Action Plan (SAP) 2021-2025* since 2019. Malaysia was endorsed by the TELWG to facilitate the development of the document on behalf of the TELWG, and KKMM had agreed for MCMC to lead this important work on behalf of Malaysia. The SAP 2021-2025 sets out the TELWG’s priorities for the next five years, and outlines how the TELWG will continue to play the leading role as the

specialised forum in APEC on all telecommunications/ ICT matters through four Priority Areas:

1. Telecommunications/ICT Infrastructure and Connectivity;
2. Trusted, Secure and Resilient ICT;
3. ICT Policies and Regulations to Enable Innovation, Economic Integration and Inclusiveness; and
4. Collaboration in Telecommunications/ICTs and Applications.

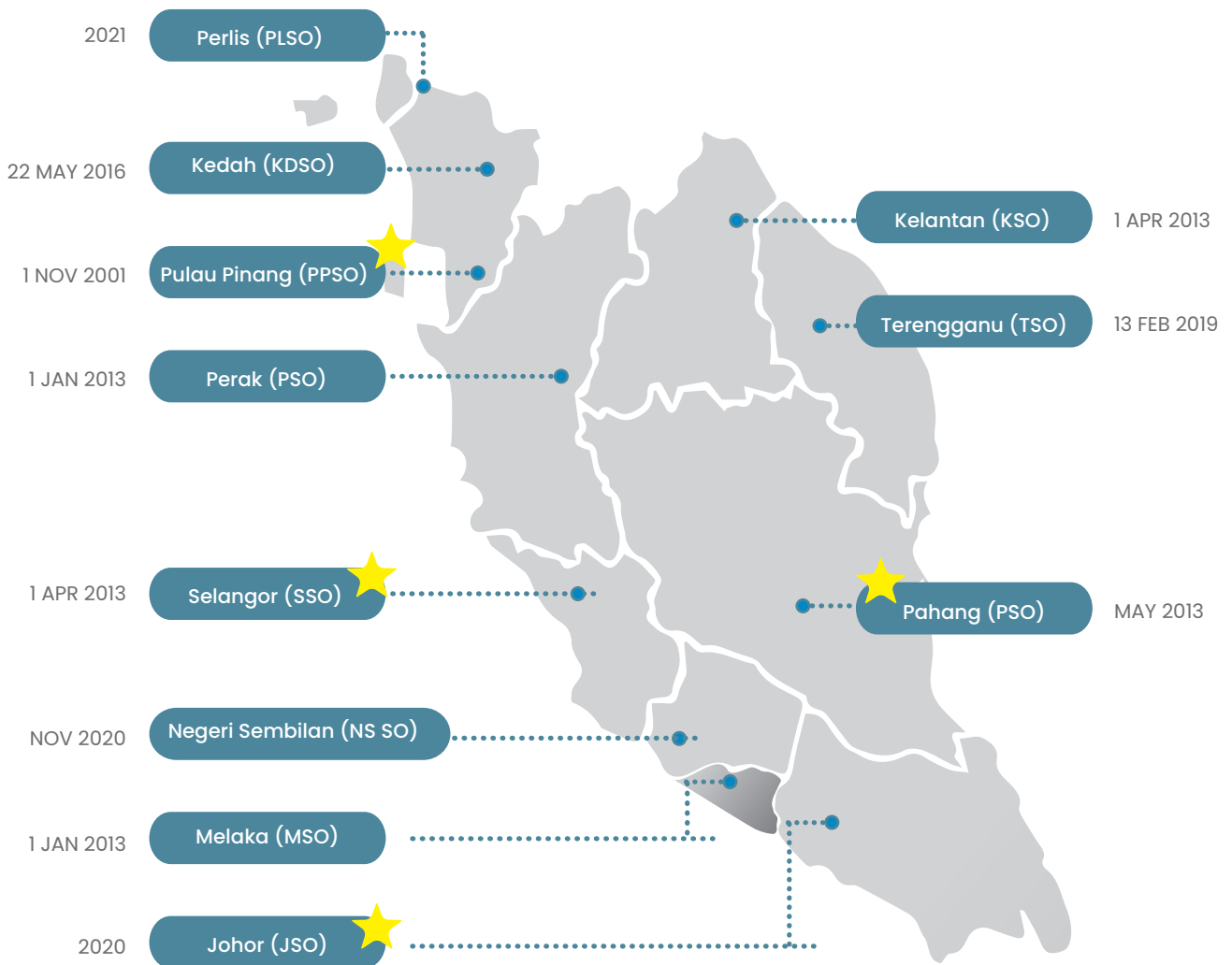
The APEC TEL SAP 2025 was successfully endorsed by the APEC TELWG at the APEC TEL61 plenary.

EMPOWERMENT OF STATE OFFICES

The involvement and activities of the State Offices are coordinated and monitored under the State Planning and Coordination Department (PLANCD).

Each State Office key activity contributes to MCMC’s outcome, covering regulation and development through four (4) main focuses namely infrastructure development, resource management and surveillance, enforcement and investigation, as well as advocacy and outreach.

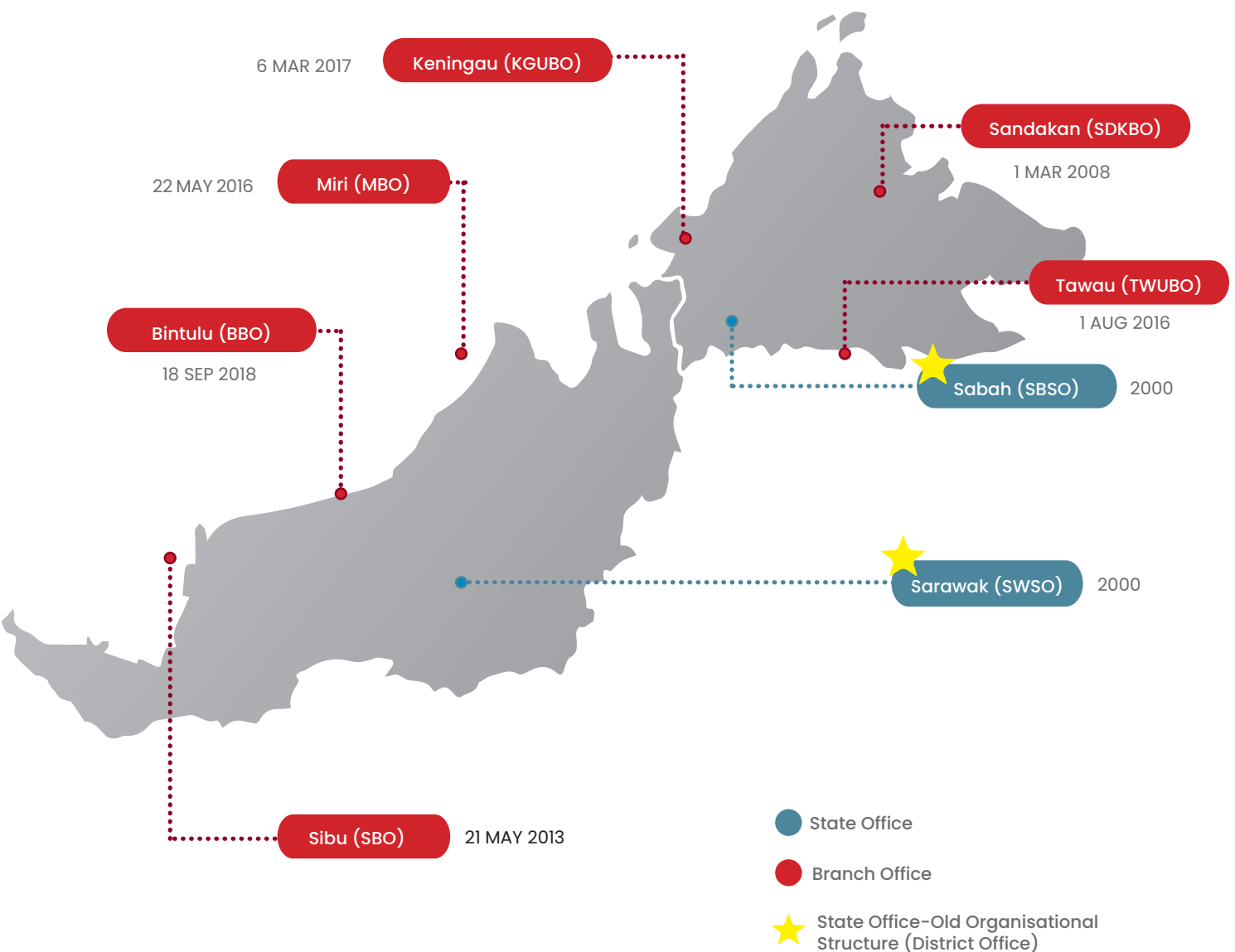
MCMC State Offices (Peninsular Malaysia):



MCMC has opened state offices since 2000 followed by the opening of State and Branch offices in stages throughout the country. The State Office has undergone a transformation where starting on 1 November 2019, the administrative structure of MCMC in the states has shifted from a district concept to a state concept.

The State Office Transformation Programme was one of the main focus areas of MCMC for 2020. The State Office Transformation Framework was developed after the restructuring of the State Office on 15 September 2020. The role of the State Office is strengthened to ensure the development agenda of the communications industry and digital economy at state level is given priority. The administrative management of the State Office is enhanced and serves as the microcosm of the MCMC. With the empowerment of the State Office, MCMC is enabled to carry out its regulatory and communication development functions more effectively through the State Office's ongoing relationship as a strategic partner to the State Government, Local Authorities (PBT), industry players, and state stakeholders.

MCMC State Offices and Branches (Sabah and Sarawak):



VISION					
Strategic Partner in the State for the Development of Digital Economy					
Strategic Success					
6. Results	<ul style="list-style-type: none"> Better coverage and quality of experience for the Rakyat-Infrastructure. JENDELA Map - One stop Digital Infrastructure Database. Uplift socio-economic of the Rakyat. 	<ul style="list-style-type: none"> Consumer Protection via effective regulatory enforcement. MCMC and stakeholders (PBTs) revenue assured. 	<ul style="list-style-type: none"> Recognised as expert in Digital Economy. Appointed as State Communication & Multimedia advisor. State Government delivery services improved. 	<ul style="list-style-type: none"> Innovative Collaborative Programme. MCMC & the Rakyat success stories. MCMC roles & functions and effective branding. 	
5. Focus Area	JENDELA	Regulatory Efficiency and Innovation	Performance Improvement and Governance	Effective Communications- and Branding	
ENHANCED MCMC ACTIVITIES					
4. Activities	<ul style="list-style-type: none"> Consumer Protection Enforcement Licence Monitoring 	<ul style="list-style-type: none"> Quality Monitoring Apparatus Assignment Compliance 	<ul style="list-style-type: none"> Infrastructure/USP Implementation 	<ul style="list-style-type: none"> State Planning/Blueprint Development Community Economic Development Infrastructure Planning 	<ul style="list-style-type: none"> Property/Finance Administration Integrity Capacity Building at state i.e.; conferences and seminars Parliamentary (DUN)
3. Values	Authoritativeness		Integrity	Competence	
2. Roles	REGULATORY			DEVELOPMENT	
1. Foundations	MCMCA	CMA	DSA	PSA	

State Office Transformation Framework

Throughout 2020, the main activities of the State Office were focused on strategic engagement with the state stakeholders in line with the country’s aspirations to ensure that the people would get quality access to digital connectivity through the implementation of JENDELA. All state offices held strategic engagement sessions involving YBr’s Chairman of MCMC together with the Chief Minister, ICT EXCO, State Secretary and stakeholders. The objectives of the engagement session were as follows:

- a) To explain the National Aspirations for JENDELA implementation targets;
- b) To forge cooperation and policy harmonisation to facilitate the development of digital infrastructure in the state;
- c) To promote telecommunication infrastructure policy as a third utility and take it to the highest level of the State Government (MMKN) for implementation methods in all states;
- d) To inform of the use of the Infrastructure Permit Management System (CIPM) by all local authorities; and
- e) To determine the Service Level Agreement (SLA) by the State Government on the achievements of the state appointed central agency (OSA) to improve the state’s digital infrastructure application process.

The State Office also conducted inspections at the completed and upgraded infrastructure sites to ensure that the sites meet the standards set under JENDELA.

In addition, the State Office conducted activities based on four (4) main state focuses, and achievements throughout 2020 were as follows:

A. Infrastructure Development	
1. Infrastructure Project	• A total of 152 towers under the NFCP 1 project nationwide and still in the process of implementation.
2. MCMC, State Government and Development	• A total of 8,558 applications for OSC technical reviews were received at all State Offices (except in Sabah and Sarawak). 93.07% from the total application was processed according to the client's charter.
B. Resource Management and Monitoring	
1. Apparatus Assignment	• A total of 5,853 new applications and apparatus renewals (AA) were accepted. From the total application, the AA payment received amounted to RM2,040,011.00.
2. Quality of QoS Services	• 941 fixed line and mobile broadband (QoS) tests were performed.
3. Spectrum Monitoring	• A total of 202 cases were received and identified throughout 2020 and 98.51% or 199 cases were successfully resolved.
C. Enforcement and Investigation	
1. Enforcement	• The total number of related enforcement tasks under the CMA 1998 was 1,066 nationwide.
2. Regulation	• A total of 3,102 complaints were received and a total of 2,839 were processed in 2020 in accordance with the charter by State Offices nationwide.
D. Advocacy and Outreach	
1. Awareness, Development and Outreach	• State Offices were involved in 382 programmes of various approaches.

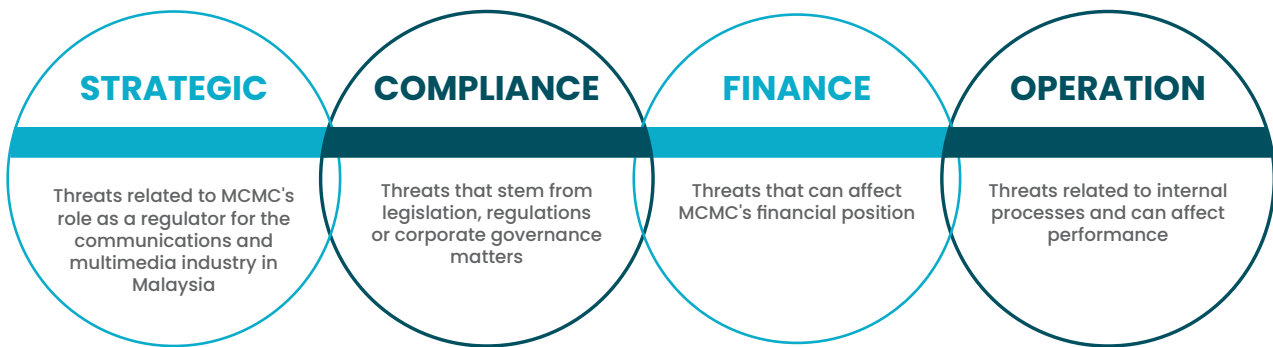
Achievements of State Office main focus activities



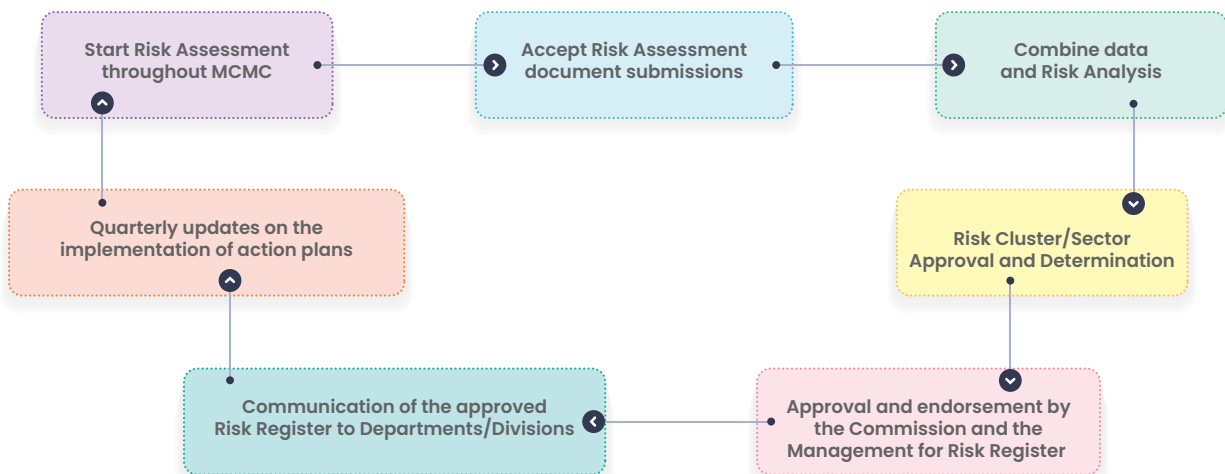
ENTERPRISE RISK MANAGEMENT

MCMC continues to strengthen its Enterprise Risk Management (ERM) framework by holding awareness and engagement sessions with “Risk Champions” to update the Risk Register. This step is intended to inculcate the culture of risk preparedness in all things done at MCMC. Simultaneously, this step aims to identify situations that could potentially bring about an adverse effect to MCMC and to prepare action plans to reduce risks.

The diagram below displays the types of risks that may be encountered by MCMC and the following figure shows the life cycle of the MCMC ERM framework.



Types of risks that may be faced by MCMC



The life cycle process of the ERM Risk Register framework

COVID-19 PANDEMIC

The MCMC Risk Management Department activated a full crisis mode in early 2020 due to the COVID-19 pandemic. Some business plans for the year had to be postponed to give full attention to ensuring the safety of MCMC's employees and stakeholders. A Crisis Management Team (CMT) was established in February to address and plan steps needed to be taken to overcome the transmission of COVID-19 in MCMC.

The immediate step taken was to install hand sanitiser dispensers on all floors and in public areas, distribute face masks to staff, issue advice and warning notices, as

well as carry out disinfection work in the office.

Leaflets to raise awareness about the pandemic were distributed among staff. Contents of these pamphlets included guidelines on hand hygiene, updates to standard operating procedures, the latest statistics on the pandemic and other general information.

BUSINESS CONTINUITY IN A PANDEMIC

Internal

Another immediate step taken by MCMC was to create an Alternate Working Arrangement Solution (AWAS) so that staff could work from home. Those who needed to come into the office were scanned for temperature before being allowed to enter MCMC premises, including the states and branch offices. At the same time, staff were prohibited from traveling abroad and the management approved a "refund policy" for staff who had made prior arrangements to travel abroad.

All staff were encouraged to communicate and hold virtual meetings through video and tele-conferencing facilities. To support the work from home (WFH) policy, the ICT infrastructure and network capacity were enhanced, and this included an upgrade of VPN security to support 805 employees.

Recognising the importance of providing the right equipment for a successful WFH arrangement, MCMC purchased ample video conferencing platform slots, distributed laptops to all staff including non-executive staff, granted digital allowances for home broadband connections, general financial support to non-executive staff, and transferred all physical training programmes to online mode.

Staff who had close or casual contact with COVID-19 positive patients were instructed to WFH while standard contact tracing procedures and advice on quarantine procedures were initiated as preventive measures. All procedures implemented by the CMT were continuously reviewed and improved from time to time.



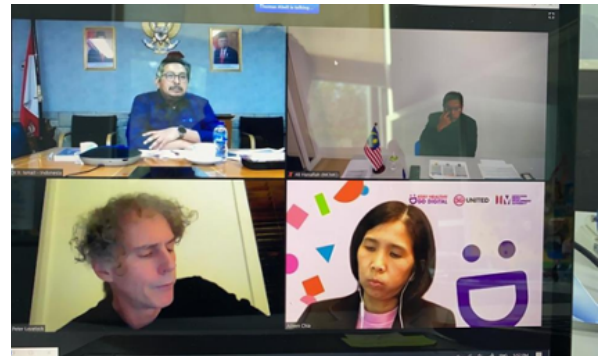
Sanitation process



Leaflets on the COVID-19 pandemic



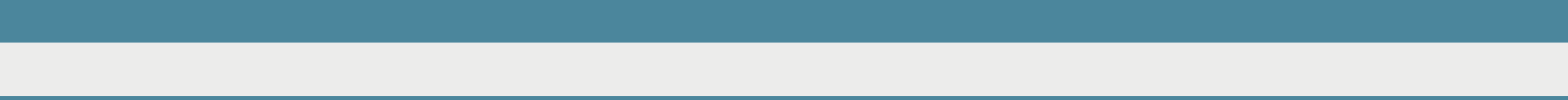
Online conference with international parties (with Malaysia's Prime Minister)

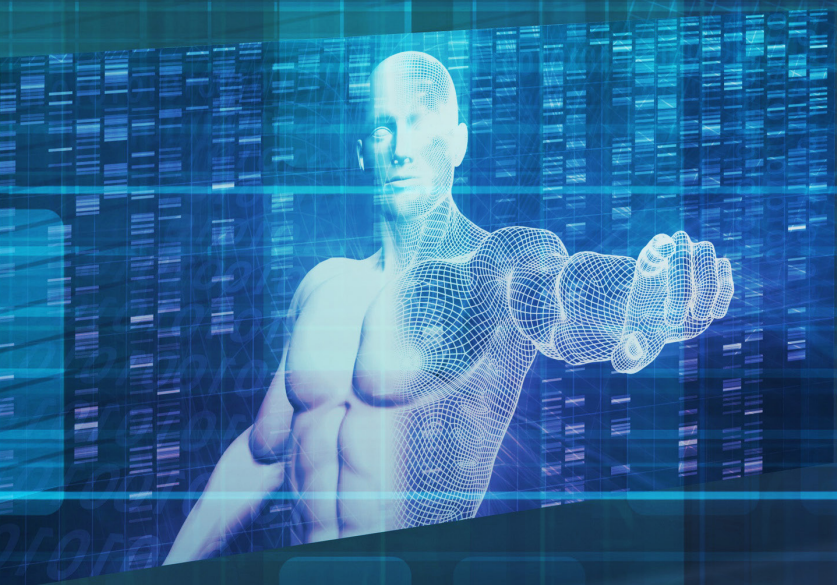
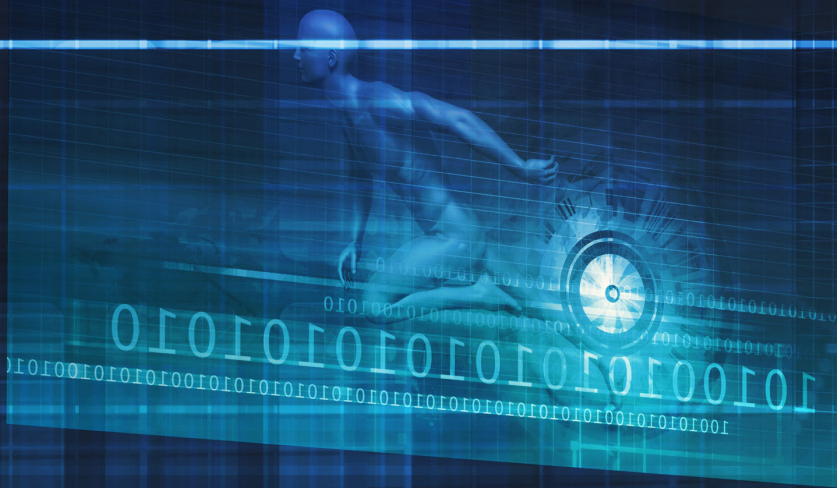


Online conferences with international parties



Physical-distancing signage





SOCIAL EMPOWERMENT



04

SOCIAL EMPOWERMENT

INTRODUCTION

The people's ability to adapt and take advantage of the rapid digital transformation needs to be enhanced through effective initiatives by various parties including the government.



Digitally based development has brought us to the verge of the 4th Industrial Revolution (IR4.0) which will be driven through various new innovations and the introduction of 5G technology. Without an effective plan, many people will be at risk of being left out, which leads to huge skills and economic gaps. This imbalance can trigger numerous problems in the future



To help communities gain skills and improve their socio-economic status, MCMC in 2007 began establishing what is known as the *Pusat Internet Komuniti* (PIK). Now totalling 873, PIKs serve as a digital development centre in the community, especially for the rural population and urban underprivileged. One of the primary missions of PIKs is to facilitate the adoption of micro entrepreneurs, into digitalisation i.e., adopting e-commerce and social media platforms for businesses.

Through the National Digital Broadcasting and digital Identity initiatives, the people are adapted to the digital lifestyle in line with the change process worldwide. Emerging threats that came along with the use of technology are addressed through monitoring, enforcement and implementation of large-scale advocacy programmes executed by MCMC.

By way of social empowerment, MCMC hopes to improve the people's preparedness towards the enablement of skills in driving the country's Digital economy agenda, and in leading the national progress and the people's shared prosperity. Channeling of active participation and inclusivity in the value chain will propel Malaysia towards a high-income country.



TRANSFORMATION OF THE *PUSAT INTERNET KOMUNITI*

The *Pusat Internet Komuniti (PIK)* is one of the initiatives under the Universal Service Provision (USP), introduced by MCMC in 2007.



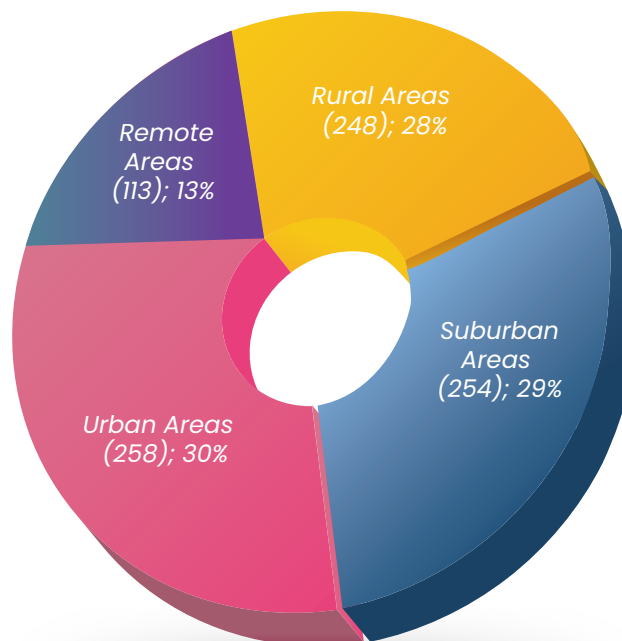
Pusat Internet Komuniti



Learning sessions at PIK

The implementation of PIK is targeted at underserved areas and underserved groups. This includes providing collective internet access in rural and remote areas as well as to communities residing in low-cost housing in urban areas.

Location Distribution of the 873 Pusat Internet Komuniti



Distribution of PIK Locations Throughout Malaysia



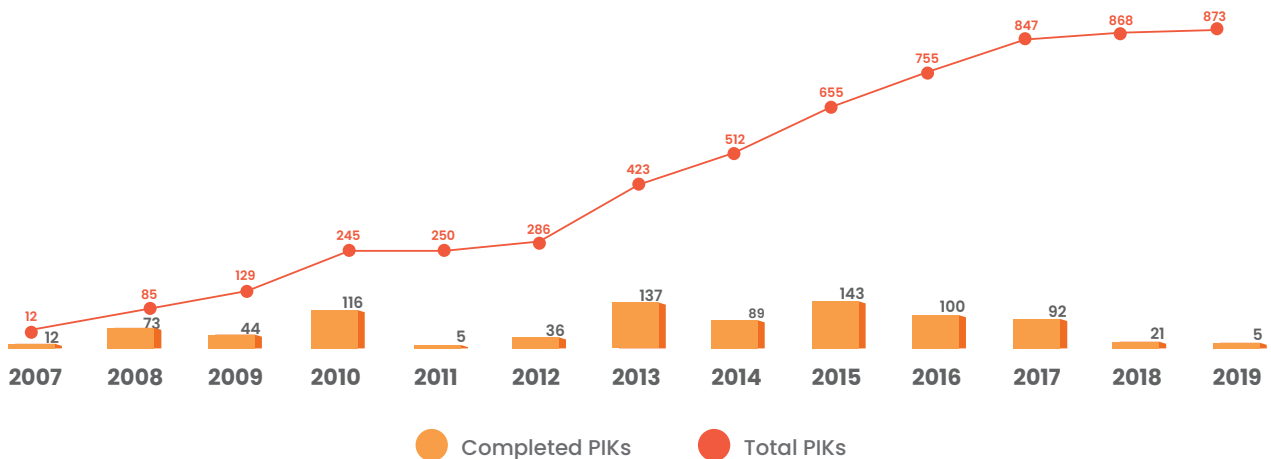
Learning sessions at PIK

The main objective of the PIK is to provide collective Internet access to communities with inadequate broadband coverage. The PIK also offers various human capital development programmes related to Information and Communication Technology or ICT-based learning, entrepreneurship, multimedia, as well as awareness programmes and community involvement to improve socio-economic status and to empower human capital among rural communities. All this while at the same time bridging the digital divide between urban and rural communities.

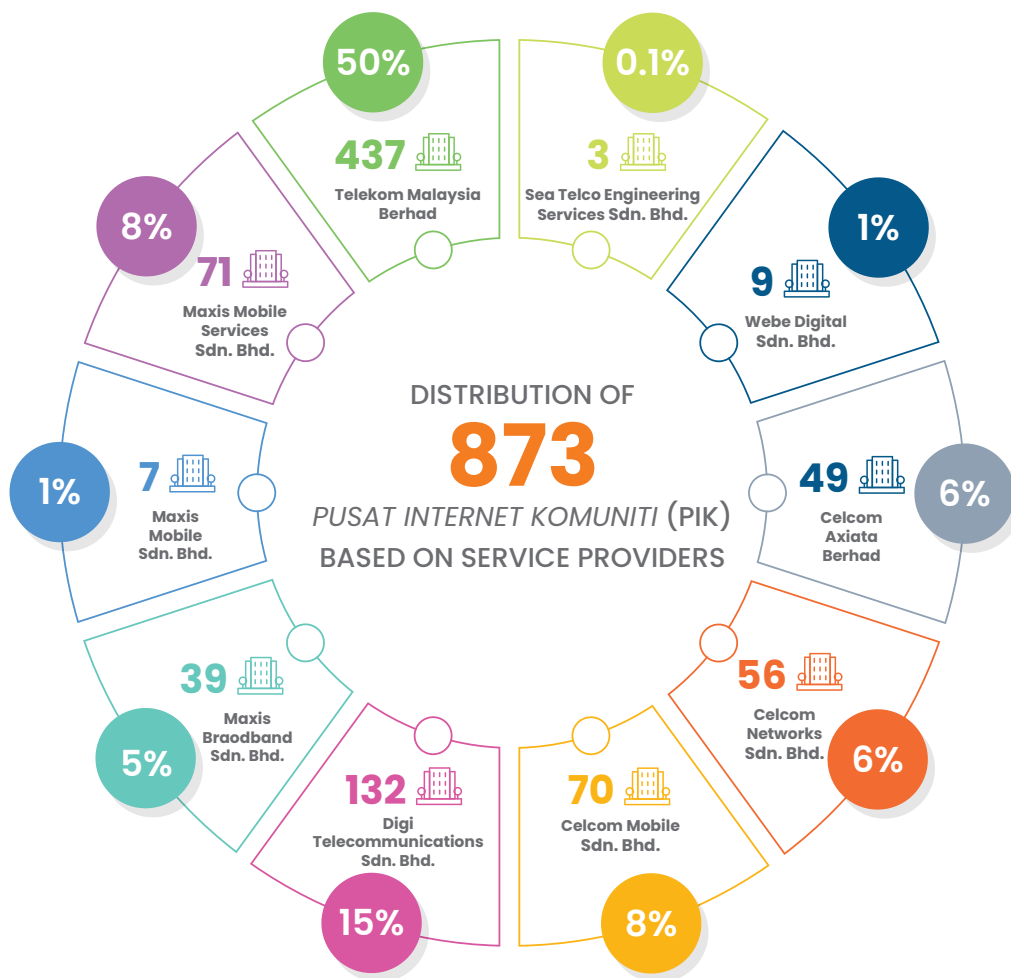
As at 31 December 2020, a total of 873 PIKs nationwide were fully operational.



Distribution of 873 PIKs by State and Federal Territory



Number of the PIKs Completed by Year



Service Providers Appointed to Provide and Manage the Operations of the PIKs Throughout Malaysia

In 2020, the number of registered PIK members benefitting from the various facilities and services available at PIKs throughout the country were up to 678,000 whereas non-members were estimated to be 520,000.

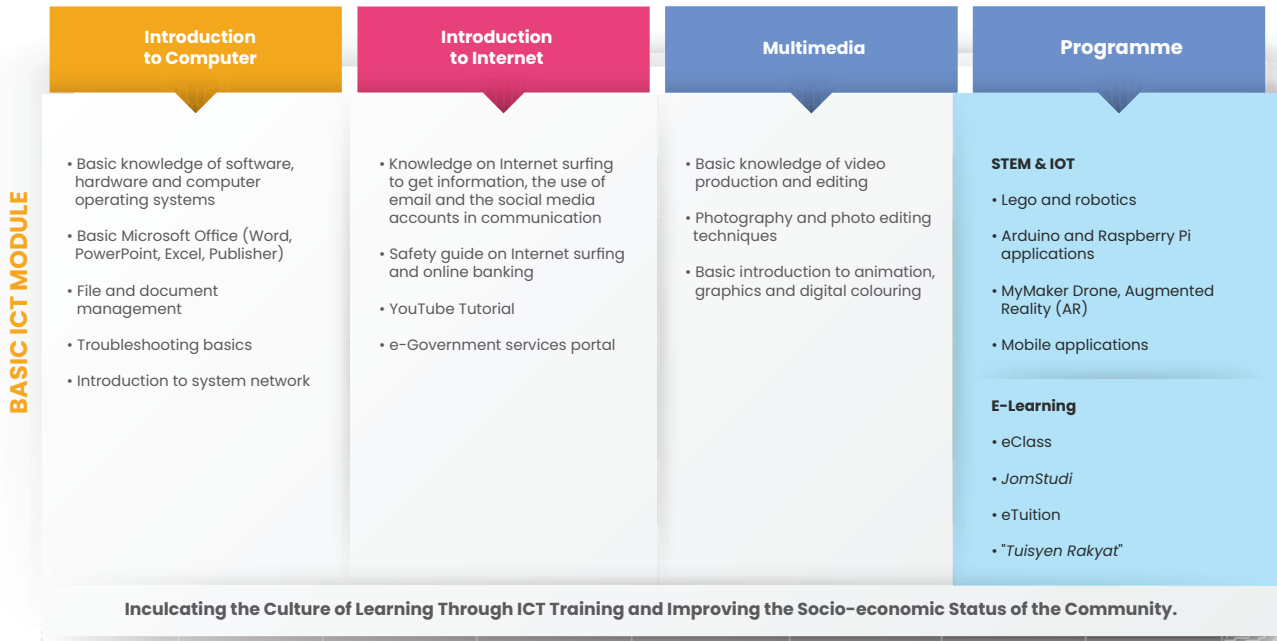
OVERALL ROLES AND FUNCTION OF THE PUSAT INTERNET KOMUNITI (PIK)

In the 13 years since its establishment, PIKs have undergone a transformation process, from just providing Internet access and services, to becoming agents of socio-economic change and digitalisation of society.

From the local community, 2.79 million were recorded to have participated in various ICT-based programmes and trainings offered at PIKs such as Science, Technology, Engineering and Mathematics (STEM), Internet of Things (IoT), entrepreneurship, e-Learning, as well as multimedia and community engagement.

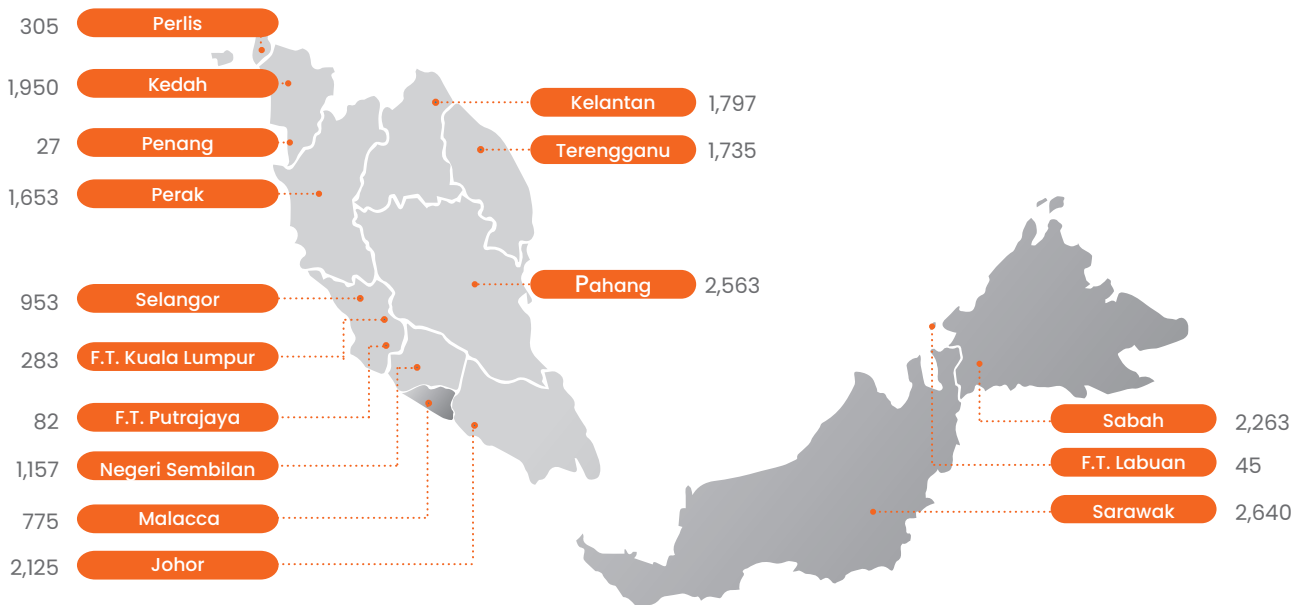
Of this total number, it was recorded that more than 1.7 million participants from the community attended ICT trainings comprising STEM, IoT and e-Learning programmes, whereas the remaining 1.09 million were community members who attended entrepreneurship trainings, advocacy and awareness programmes organised by PIK.

The diagram on the following page shows the scope of basic ICT modules and the programmes held at PIKs nationwide.



Scope of modules and basic ICT programmes organised at PIKs nationwide

Entrepreneurial development is one of the main focuses of PIK in empowering local entrepreneurs towards increasing the income of the innovative digital entrepreneurship community. Various digital entrepreneurship programmes have been conducted at the PIK to guide entrepreneurs in growing their businesses through e-commerce platforms. Currently, there are a total of 20,353 active PIKs mentoring entrepreneurs.



The Distribution of 20,353 Active Entrepreneurs in PIK by State and Federal Territory

The programmes and activities conducted by PIKs throughout the country are supported by the appointed service providers, technology partners and the local community, leveraging on strategic partnerships with various stakeholders such as government agencies, the private sector and Institutions of Higher Learning (IHLs). Through these endeavours, MCMC will ensure that PIKs remain relevant as a digitalisation development centre in the community.

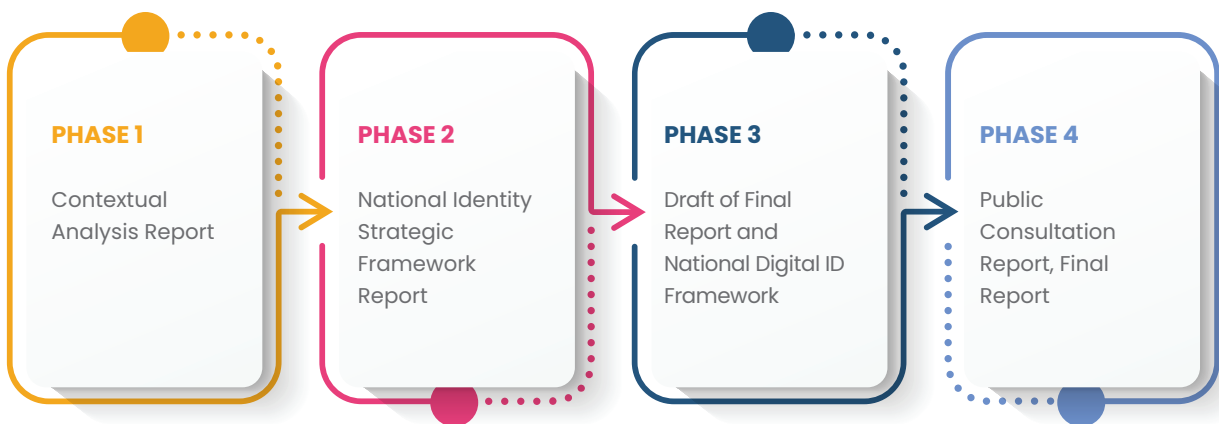
In a country that is confronted by the COVID-19 pandemic where face-to-face learning sessions in schools and IPTs are affected, PIKs have become the central focus of students attending classes and sitting for exams online, especially those living in rural and poor coverage areas.



NATIONAL DIGITAL IDENTITY

Based on the mandate given by the Cabinet, KKMM through MCMC, led the implementation of a 9.5-month long comprehensive study to develop the National Digital Identity Framework (NDI) from 21 November 2019 to 31 August 2020.

The NDI Framework Study was based on four (4) scopes which comprised, landscape availability, implementation model, cost and benefit analysis as well as recommendations to the Government on appropriate models and implementation measures. Below is the submitted report on the study:



In order to examine, refine and confirm the recommendations and suggestions NDI Framework study, MCMC established an NDI Framework Task Force which consisted of two (2) committees, namely the Steering Committee (SC) and the Working Group Committee (WGC). In general, the membership of this Task Force was based on the role of the respective Ministry as well as the agencies to ensure the success of the National Digital Identity Initiative.

The establishment of the NDI Framework Study Task Force was basically to achieve the following missions:

- To coordinate input from legal aspects;
- To obtain clear commonalities and agreement from various key stakeholders on the essence of the results and reports including recommendations submitted by the consultant; and
- That the Task Force was part of the deliberative process that ensured the framework baselines and the study directions were on track and met the targetted objectives.

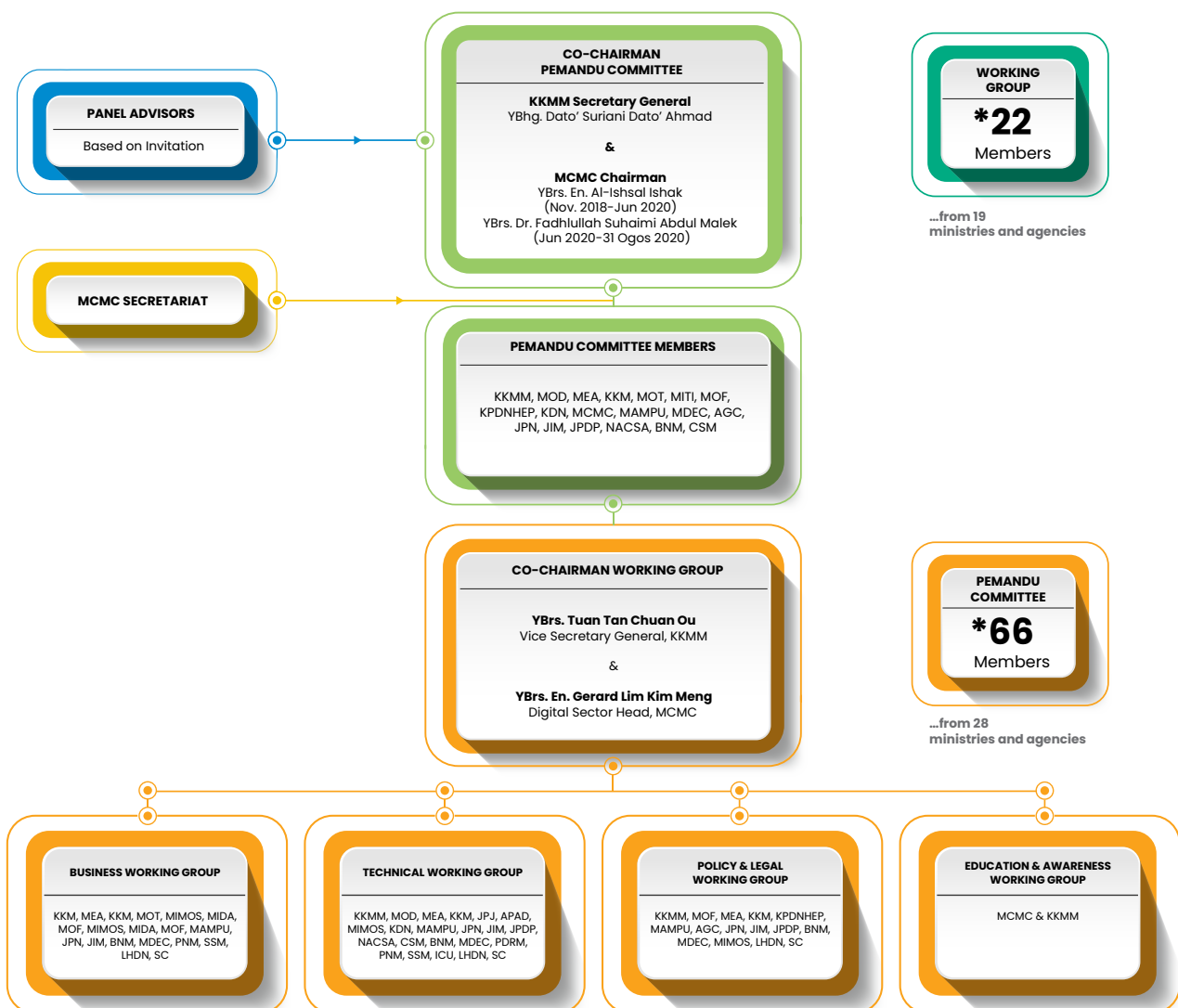
Strategically, the main tasks of the NDI Framework Task Force were based on the following objectives:

- To examine and confirm the suitability of the proposals;
- To identify risks, challenges and opportunities that may arise from the proposals;
- To identify the effect or impact of the report from the legal, socio-economic, cultural and environmental aspects; and
- To ensure that the proposals submitted were the most effective approach to the NDI Framework.

The SC membership jointly chaired by the Secretary General of KKMM and the Chairman of MCMC, was made up of

representatives from the main stakeholders which included 22 representatives from 19 Ministries and relevant agencies. The WGC comprised 66 representatives from 28 government agencies who were experts in the field, and was co-chaired by the Deputy Secretary General of KKMM and the Chief Digital Sector Officer of MCMC. The WGC was divided into four (4) Working Groups i.e., Business, Technical, Policy and Legal; as well as Education and Awareness. It had the role of discussing specifically aspects of the study to be escalated to the Steering Committee. The composition of the SC and WGC memberships were as follows:

National Digital Identity Framework Review Task Force



Representatives from the Ministries, agencies and industries in SC and WGC collaborated and were involved in a series of engagement sessions, meetings, workshops and seminars to provide input on the contents of the NDI Framework study report, in terms of use cases, policy and legal, technology and education, as well as awareness based on the expertise and roles played by their respective organisations.

The first activity in 2020 was a discussion on the vision, mission, basic principles – characteristics of the NDI as well as the implementation strategy during the NDI Strategy Workshop for members of the Working Group held on 7 January 2020 at Zenith Hotel, in Putrajaya. The purpose of the workshop was to formulate approaches for the NDI implementation strategy.



The NDID Strategy Workshop was inaugurated on 7 January 2020 by the Deputy Secretary General, KKMM



Group members discussing and presenting ideas and views during the NDID Strategy Workshop session



Presenting their ideas as a team, workshop participants were grouped by theme

The implementation of the study as well as SC and WGC meetings were initially conducted in person before going online following the outbreak of the COVID-19 pandemic. SC had presided over five (5) meetings whereas WGC had presided over four (4) meetings during the research period.



Working Group Committee Meeting held at MCMC Centre of Excellence (CoE), Cyberjaya



Representatives from various agencies were in attendance at the Working Group Committee Meeting



WGC Workshop session

DISCUSSION WITH DIGITAL ID TECHNOLOGY LEADERS

To gain an understanding and identify the latest technologies for the implementation of the digital identity at the national level and abroad, MCMC held a series of discussions with more than 10 leading local and overseas digital identity technology companies. This approach was taken to ensure that the implementation of the NDI is aligned with technology that is not only cutting edge but also coincides with the needs of the development and use of the NDI in Malaysia.

NDI FRAMEWORK PUBLIC CONSULTATION SESSION

The NDI Framework Public Consultation Session to obtain public and stakeholder views was held from 13 July to 7 August 2020. The Public Consultation Townhall was conducted both in person and virtually on 16 July 2020. In attendance were YBhg. Dato' Suriani Dato' Ahmad, Secretary General of KKMM, representatives from the ministries and departments, private agencies, regulatory bodies, industries, state government representatives and agencies as well as representatives from public and private institutions of higher learning. In general, the NDI Framework Public Consultation Session was held with the following objectives:

- To introduce the proposed NDI Framework for Malaysia;
- To obtain feedback from the stakeholders i.e., various ministries, government agencies, industry supervisors, service providers, associations, civil groups and Malaysians in general; and
- To obtain views on the use of NDI in the public and private sectors.



Participants presented issues and questions related to the NDI implementation

Through SMS blasts to mobile phone customers, the Public Consultation managed to garner participation from 67 ministries/ government agencies whereas under the organisation category, there were 156 private companies in total. Under the general public category, a total of 35,160 Malaysians aged 18 and above participated. The following were findings obtained through the Public Consultation:

ENGAGEMENT



67
Ministries/
Government Agencies



156
Private
Companies

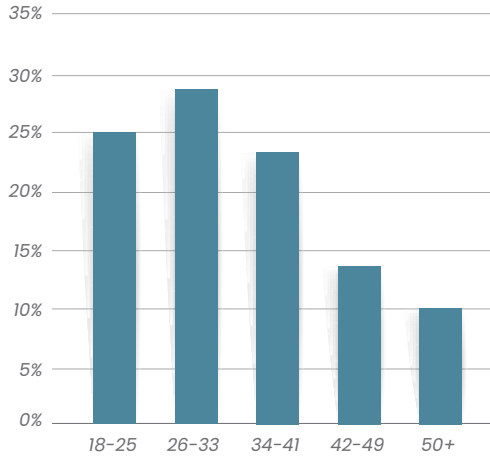


35,160
Citizens

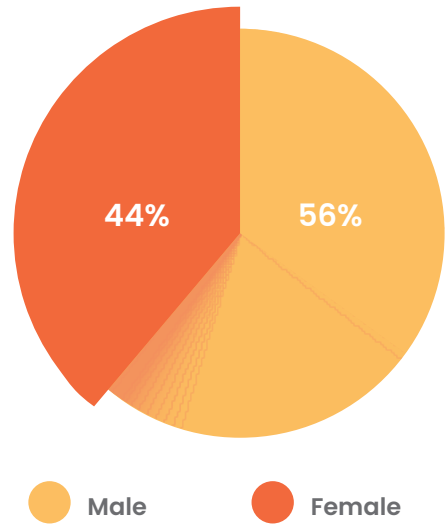
Public consultation respondent background breakdown

Public Consultation Participant Demographics

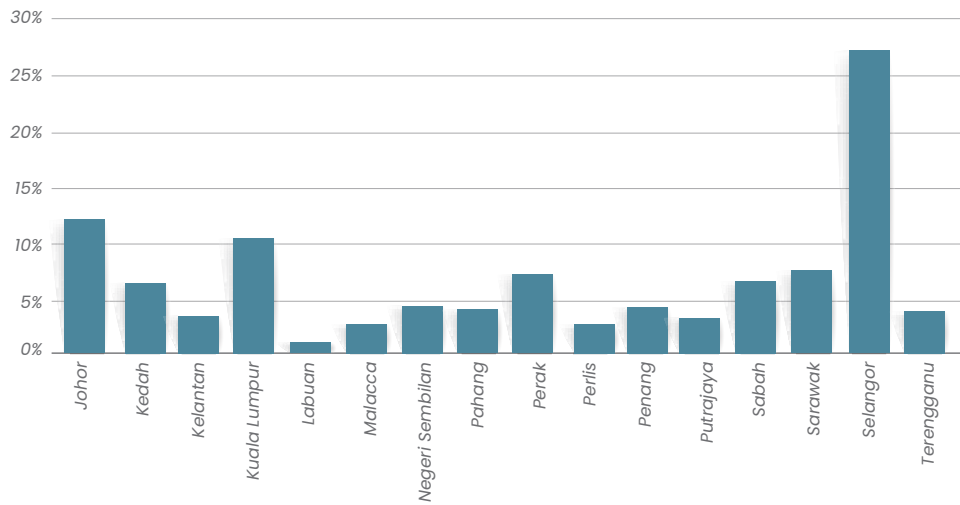
AGE



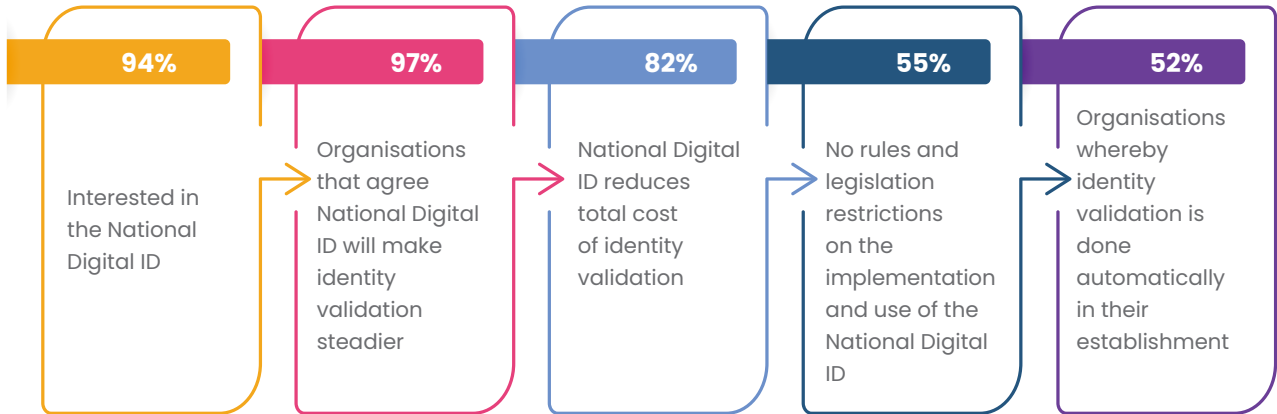
GENDER



LOCATION



PUBLIC CONSULTATION RESPONDENT BACKGROUND BREAKDOWN



Findings of the Public Consultation on views of the people and organisations regarding NDI implementation

The Public Consultation discovered that people were inclined on using the NDI based on three (3) types of services, the first being health services, followed by government assistance services and then by government digital services. For organisations, priority services selected were finance, followed by health services and government assistance services.

In conclusion, the Public Consultation showed that the people and organisations in Malaysia were ready to accept the transformation to NDI-based services as a new approach in executing various digital transactions.

MCMC presented the results of the study and recommended the implementation of the NDI at the digital Economy & 4IR Council meeting and participated in the consultation for the development of the 12th Malaysia Plan (12MP) in November 2020. Subsequently, the final recommendation from the study was tabled to the Cabinet for a decision on the way forward.



DIGITAL SOCIETY

The Malaysian society needs to enhance its digital knowledge and be prepared to face the winds of change sparked by new technologies, especially with the advent of 5G, and other technologies related to the 4th Industrial Revolution (IR4.0). The strengthening of the community's capacity should incorporate integrated action among all agencies involved.

Among MCMC's efforts towards building the people's digital capacity and promoting digital innovation was by offering proof of concept (POC) project grants across various fields. The Industry Promotion and Development Grant was established in 2012 for the development of green ICT technology with an initial fund of RMI million.

This grant to encourage development and adoption of new technologies and increase growth of technologies in local industries is managed by the Malaysian Technical Standards Forum Berhad (MTSFB).

In 2015, another grant category was introduced to encourage technology development in the Internet of Things (IoT) segment and other new technologies.

Projects under these categories, completed in 2020 are as follows:

Projects	Recipient	Value (RM)
Low Cost Acoustic Surveillance Intrusion Detection System for Wildlife Protection (ASIDS)	UiTM	69,000.00
Advanced Vehicle Monitoring and Assistance System (AVMS) for Heavy Vehicles In Malaysia	Herriot-Watt University	97,000.00
Vegetable Urban Farming	UiTM	83,000.00
TOTAL GRANT		249,000.00

List of projects under the Green ICT Grant, and Internet of Things (IoT) and New Technologies Implemented in 2020



DIGITAL OUTLOOK SERIES 2020: DIGITAL NETWORK READINESS IN THE ERA OF COVID-19

The transition to using digital technology was accelerated when the COVID-19 pandemic hit the world. The pandemic led to travel and movement restrictions which affected numerous conventionally conducted affairs. COVID-19 changed the way the world worked in every aspect of life, be it business, education or work. It also highlighted the limitations of many existing systems and emphasised the need to review the role of information technology as a driver of productivity and economic growth.

In organising the Digital Outlook Series 2020, MCMC once again partnered with the Malaysian Technical Standards Forum Bhd (MTSFB). This annual event serves as a platform for stakeholders, industry players and government agencies to discuss and identify the latest and emerging technological developments.

Reflecting on the affliction, the Digital Outlook Series 2020 aptly themed "Digital Outlook Series 2020: Digital Network Readiness in the Era of COVID-19" was held on 20 November 2020. Due to restrictions under the Conditional Movement Control Order (CMCO) at the time, the event was held online, on the Zoom Webinar platform. A total of 163 participants were online for the discussion which lasted four (4) hours.

There were two (2) sessions with speakers and moderators from the telecommunications industry and academia, as in the following agenda:

  DIGITAL OUTLOOK SERIES 2020 DIGITAL NETWORK READINESS IN THE ERA OF COVID-19 20 th NOVEMBER 2020 WEBINAR	
8.30am	Registration
9.15am	Official Opening Cik Nor Fadhilah Mohd Ali Chief Financial And Strategy Officer, MCMC
9.30am 11.00am	Session 1: Readiness of Malaysian Digital Network in Facing COVID-19 Moderator: Prof. Ir. Dr. Aduwati Sali (UPM) Speaker: Pn Norehan Yahya (MTSFB) En Abdulhadi Wahid (MTSFB) Prof Ir. Dr Mohd Ridzuan Mokhtar (MMU) Prof Dr Mohamad Yusoff Alias (MMU) Q&A
11.00am	Break
11.15am 12.45pm	Session 2: Importance of Digital Network towards Malaysian Socioeconomic Well-Being in the Age of Pandemic Moderator: Dr Khazimatol Shima Subari (MMU) Speaker: Mr Kevin Henry (CSMA) En Reza Mohammad Aidid (MTSFB) Dr Yvonne Lean-Ee Lee (MMU) Dr Intan Soraya Rosdi (MMU) Q&A

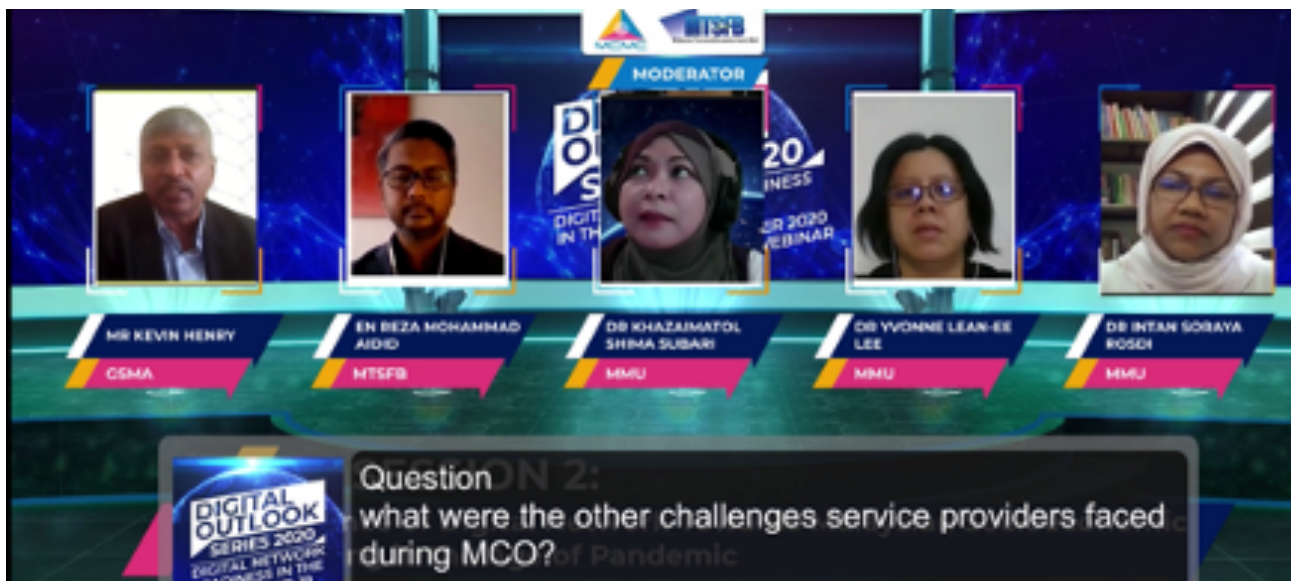
DOS 2020 agenda

The theme of Session 1 was on “Readiness of Malaysian Digital Network in facing COVID-19”, which discussed the current situation and the preparedness of Malaysia’s digital network and platform connectivity in serving the communication needs of the people. Session 2, “Importance of Digital Networks towards Malaysian Socioeconomic Well-being in the Age of Pandemic” highlighted how the pandemic disrupted and changed the way communities, businesses and individuals operate, communicate and transfer knowledge, with an emphasis on the role of digital networks.

Presentation slides from the event can be found at <https://www.mcmc.gov.my/en/Digitaloutlookseries>



Moderator and speakers for session 1



Moderator and speakers for session 2

DRONE SURVEILLANCE SERVICES IN COLLABORATION WITH AERODYNE AND PDRM THROUGHOUT THE ENFORCEMENT OF THE MOVEMENT CONTROL ORDER

MCMC in collaboration with Aerodyne had offered drone surveillance services to assist the PDRM in OP-COVID-19 in monitoring the public's compliance with the MCO in residential areas, public areas, district and state borders throughout the country. This activity aided the Air Operation Force (PGU PDRM) in strengthening their surveillance activities of monitoring the public's movement around the country during the period of MCO.

The services offered were visual patrolling, thermal patrolling and making public announcements using drones. A total of 63 drones were used for the purpose of this surveillance.

No.	Drone Type	Total	Function
1	DJI Mavic Pro	11	Visual Patrolling
2	DJI Mavic 2 Zoom	13	Visual Patrolling
3	DJI Mavic 2 Pro	2	Visual Patrolling
4	DJI Mavic 2 Enterprise	11	Thermal Patrolling and Announcements
5	DJI Phantom 4 Pro/Adv	2	Visual Patrolling
6	DJI Matrice 200, DJI Matrice 200v2	21	Thermal Patrolling
7	DJI Inspire 1, DJI Inspire 1 v2	3	Thermal Patrolling

Aerodyne had provided 20 teams to help in the monitoring of 425 designated locations throughout the country under the care of 24 IPDs or District Police Headquarters. All trained drone operators (Pilot) as well as trained assistant drone operators (Co-Pilot) were equipped with appropriate Personal Protective Equipment (PPE) such as face masks and gloves throughout the operation. All teams had obtained permission as well as flight permits from relevant authorities, such as the Civil Aviation Authority of Malaysia (CAAM) prior to each drone flight.

A total of 1,967 drone flights were successfully conducted during the MCO period. The collaboration between Aerodyne and PDRM on surveillance activities at all locations proved that the situation was under control and that the public was highly compliant with the MCO.

MCMC ACADEMY

In line with the vision of MCMC, the MCMC Academy objective is to develop, expand and enhance skillsets and knowledge, as well as human learning and development. Three (3) components, namely Training Centre, Knowledge Management and Resource Centre, and Research Enterprise Department have been set up to achieve this aspiration.

Under the MCMC Training Centre, various internal and external training programmes, online courses and collaborative programmes to meet the skills and development needs of MCMC staff and stakeholders were executed. Among the main activities held throughout 2020 were:

1. The Launch of the e-Learning Platform (iLearn)
 - This online learning platform allows MCMC staff to access courses from anywhere and at any time.
 - Two (2) online learning platforms made available were:
 - i. *LinkedIn Learning (launched on 10 June 2020) – LinkedIn Learning is an e-learning platform providing more than 10,000 online courses available to all MCMC staff.*
 - ii. *COURSERA (launched on 11 August 2020) – COURSERA is an e-learning platform offering more than 3,000 certification or specialised courses.*
2. Implementation and Management of Internal and External courses
 - A total of 291 programmes involving 27,125.70 hours were organised and managed.
3. Collaborative Training Programme
 - A total of 13 collaborative programmes including specially coordinated study visits by the agencies and ministries such as PDRM, ATM, KKMM, MACC and JAIS were also organised.

KNOWLEDGE MANAGEMENT & RESOURCE CENTRE (KMRC)

KMRC actively organised various knowledge and information sharing activities to inculcate a knowledge-sharing culture among staff and the industry as part of Knowledge Management practice. KMRC also constructively collect, manage, conserve, and make accessible information and knowledge resources in printed materials, compact discs and digital. Besides that, as a Digital Repository Knowledge Hub, at the beginning of May 2019, KMRC began using a more structured and systematic 'Integrated Library System' to facilitate each resource and materials search. The 'KnowledgeHub' portal, established at the end of 2018 serves as a one-stop knowledge centre. KMRC since 2007 has also been publishing the annual magazine (dot)myConvergence, highlighting topics related to technology, multimedia and current industry issues. To implement knowledge management, KMRC conducts the 'MCMC Knowledge Management (KM) Framework' project to set out a knowledge management framework in the organisation.

RESEARCH ENTERPRISE DEPARTMENT (RED)

MCMC engages in research collaboration with research institutions to support its approach in undertaking evidence-based decision-making in carrying out its mandate. For this purpose, MCMC has established two Research Grants, namely, the Networked Media Research Grant and the Digital Society Research Grant.

i) Networked Media Research Collaboration Programme (NMRCP)

The programme was launched in 2008 to engage institutions of higher learning in research collaboration in order to support MCMC's role in effectively implementing policy and regulatory compliance in regulating content. To date, four phases of the programme have been implemented covering 21 collaborative projects with 11 local universities (public and private) and a total of RM3.48 million in research grants have been awarded. Below, the research focus areas:

- i. Digital inclusion
- ii. Regulatory effectiveness
- iii. Digital and media literacy
- iv. Internet, religion and spirituality
- v. Internet, health and medicine
- vi. Impact of MCMC initiatives
- vii. Impact of new media on society

Research projects ranged from one to two years and research grants of between RM100,000 to RM200,000 were awarded depending on the scope and requirements of the study. The research findings of phases 3 and 4 studies funded under the NMRCP will be published in MCMC's Media Matters, Volume 3 which is expected to be published by the end of the first quarter of 2021.

ii) Digital Society Research Collaboration Programme (DSRCP)

The programme was launched on 3 July 2020, offering a grant of up to RM10,000 in value for each project and based on a research period of not more than six months. For the year 2020, MCMC collaborated with nine researchers from six public and private universities with an aggregate total of RM98,960.00 in research grant funding. For 2021, the Call for Proposals is scheduled to be launched by the end of the first quarter. The shorter research time frame for each project is aimed at obtaining current data and evidence from different types of research including comparative studies, benchmarking and impact studies. The DSRCP's research focus areas of Digital Citizenship and Cyber-wellness and Digital Inclusion are closely aligned with the digital and socio-economic development of priority areas in digital services, e-commerce, digital identity, IoT technology, artificial intelligence (AI), digital security and privacy.

Additionally, in 2020, MCMC participated in a collaborative research initiative with local and international organisations on a project entitled Disrupting Harm: Evidence to Understand Online Child Sexual Exploitation and Abuse (OCSEA), and was

appointed as chair of the Disrupting Harm-Technical Working Group (DH-TWG). The project is led by the Global Partnership to End Violence Against Children (End Violence Fund) in collaboration with ECPAT International, INTERPOL and UNICEF Office of Research-Innocenti, with support from government departments and agencies, including MCMC, the Ministry of Women, Family and Community Development and PDRM.

The study is part of a research project to produce new evidence regarding the scope as well as the nature of online exploitation and sexual abuse of children in 14 countries in South and East Africa as well as Southeast Asia. The initial plan was for the research to be completed in the first quarter of 2021. However, due to the COVID-19 pandemic, fieldwork for research in Malaysia had to be postponed as researchers have had to review the implementation of its fieldwork, including adapting the research to the guidelines set by the government in dealing with the COVID-19 pandemic.

During the year, the department co-organised a Roundtable Meeting as part of the research on a proposal for an Anti-Cyber Bullying Legislation in collaboration with the research team from Multimedia University; and a virtual seminar entitled “Webinar: Children in a Digital World – Understanding Children’s Risks, Harm and Safety” in collaboration with UNICEF Malaysia.



Participants and MCMC representatives at the Round Table Meeting co-organised with Multimedia University



Webinar:
Children in a
Digital World –
Understanding
Children’s Risks,
Harm and Safety



ADVOCACY

MALAYSIA ICT VOLUNTEER (MIV)

The Malaysia ICT Volunteer or MIV is an empowerment platform that has been designed and developed by MCMC since 2016 to enhance the level of digital literacy among Malaysians. The year 2020 witnessed the implementation of MIV online, embracing new norms as a result of the COVID-19 pandemic.

MIV WITH COMMUNITY

MIV With Community comprises of volunteers from the local community. MIV With Community in 2020 involved a total of 3,382 volunteers nationwide volunteering at 869 *Pusat Internet Komuniti* for a period of three (3) months, from 1 September to 30 November 2020.

The focus areas of MIV With Community implementation in 2020 were as follows:

- a) Supporting MCMC campaign, “**Freedom of Speech Is Not Freedom to Lie**”, in which volunteers shared and promoted positive values such as ‘speak the truth’, ‘judge wisely’, and ‘be mindful when speaking, and explained the impact of fake news to the local community. The volunteers had also taught their local community how to verify and authenticate an information.
- b) Promoting digitalisation as the new norm by encouraging the use of applications developed by the Government such as MySejahtera, e-Census and other e-Government services.
- c) Sharing **Klik Dengan Bijak** (KDB) advocacy messages with the local community, students, parents and guardians, family members, as well as colleagues. This includes encouraging the practice of self-regulation and fostering awareness on the enforcement of Section 233 of the CMA 1998.

The Community Engagement Department (CMED) had conducted the training workshops for volunteers entirely online through *Sembang Santai* sessions in September and October to prepare the volunteers for project implementation and monitoring exercise.

MIV WITH SCHOOL

Through the collaboration with the Ministry of Education (MOE), teachers in primary and secondary schools were recruited as volunteers to help cultivate the culture of positive, safe and responsible use of Internet among school students. The teacher volunteers were given guidance on how to implement the online safety advocacy to students, colleagues, parents, guardians, and the local community.

This effort was in line with MOE’s measures to introduce home-based teaching and learning (*Pengajaran dan Pembelajaran di Rumah- PdPR*) for all schools in Malaysia to curb the spread of COVID-19. This transition

resulted in children spending more time online and directly increasing their risk of exposure to cyber threats and exploitation. Teacher volunteers had shared KDB modules with students, parents, and guardians to help them mitigate these risks.

The KDB content and learning materials were shared with the volunteers via Google Drive while other contents such as infographic posters and videos were accessible on MIV’s and KDB’s social media platforms. The MIV With School programme in 2020 had involved 127 teachers from 79 schools in the Federal Territories of Putrajaya and Labuan as well as the state of Melaka.

MIV 2020 PROGRAMME ACHIEVEMENTS

Through this initiative, a total of 3,508 volunteers from various age groups and backgrounds were successfully recruited. Although the volunteers needed time to adjust to the “new norm” initially, they had provided positive feedback on the implementation of MIV online at the end of the volunteering period. With their sincere efforts and great enthusiasm, the volunteers had successfully carried out a positive information outreach to 5.6 million community members last year.

MIV With Community 2020



MIV With School 2020



MIV Online 2020



Apart from the volunteering programme, MCMC’s advocacy messages were also shared on MIV’s social media platforms such as Facebook, Instagram and Telegram. This had made it easier for volunteers to obtain the latest information to be disseminated to the community, through online and offline. The volunteers for the MIV With School and MIV With Community programmes were awarded with certificates of appreciation after they had completed their tasks and handed in their feedback as a gesture of recognition for their time and effort in making the programmes a success.

At the international level, the MIV With School programme was among the projects that were successfully nominated for the World Summit on the Information Society (WSIS) 2020 event organised by the International Telecommunication Union or ITU in April 2020. The programme was selected as nominated project under the WSIS Prizes 2020 and finalist for the WSIS 2020 Photo Contest.

MIV 2020 IN PICTURES



MIV With Community: Volunteers participated in the MIV Sembang Santai activity online at PIK Felda Bukit Batu, Kulai, Johor



MIV With School was selected as the finalist for WSIS Prizes 2020 Photo Contest: MIV teacher volunteers conducting an ICT class at SK Pekan Kinarut, Papar, Sabah



Another photo submitted for WSIS Prizes 2020 Photo Contest: MIV teacher volunteers conducting an ICT class at SK Tampasak, Papar, Sabah



MIV With School: A student of SJKT Batang Melaka conducted an ICT class from home



MCMC staff supported the MIV nomination in WSIS 2020 competition by voting for MIV With School programme in January 2020

KLIK DENGAN BIJAK (KDB)

In order to educate the public on online safety and address the rampant abuse of the Internet, MCMC launched *Klik Dengan Bijak* (KDB) in 2012. KDB is an awareness programme that cultivates positive use of the Internet guided by the principles of the *Rukun Negara* on three (3) main aspects namely Safety, Security, and Responsibility. The awareness message brought by KDB was about the positive and ethical use of the Internet, regulation of the cyberspace in Malaysia, educating children in the digital age, children online safety issues especially cyber bullying and sexual grooming, evaluating online content, and identifying online scams.

In 2020, a total of 40 programmes were implemented nationwide with an estimated audience reach of more than 240,938. These programmes were held in collaboration with 16 strategic partners such as government agencies, the private sector, non-governmental organisations, and institutes of higher learning. Since its launching in 2012 until 2020, KDB initiative has an audience reach of more than six (6) million and gained over 85,000 followers on social media platforms. Further, KDB modules have been implemented at 873 PIKs nationwide including Sabah and Sarawak by 1,730 PIK staff.

STRATEGIC COLLABORATION

MCMC through KDB works with various agencies to ensure the implementation objectives are achieved.

Agency	Involvement
CyberSecurity Malaysia	Safer Internet Day-SID 2020- Malaysian Edition
Ministry of Health Malaysia	<i>Program Transformasi Minda</i> (Mindset Transformation Programme)
Ministry of Education Malaysia	<i>Wacana KPM (MOE Discourse)</i>
National Institute of Public Administration (INTAN)	Social Media Usage Forum "Ponder Before You Post"
Institutes of Higher Learning	KDB Talk (Ceramah KDB)
Faculty of Information Science, Universiti Kebangsaan Malaysia (UKM)	" <i>Klik Dengan Bijak: COVID-19 Information Management</i> " Video and Poster Competition

ONLINE LIVE “KLIK DENGAN BIJAK” TALK SHOW PROGRAMME

MCMC continued to educate and raise awareness on the safe, secure, responsible, and ethical use of the Internet to ensure a safe online environment. KDB’s talk show called *Bicara Klik Dengan Bijak* was broadcast for one (1) hour each session on KDB’s Facebook platform. The speakers consisted of advocacy officers from MCMC state offices. A total of 23 series were successfully broadcasted from 8 September to 10 December 2020. The total audience reach for this programme was 274,896.

ACHIEVEMENTS AT THE WORLD SUMMIT ON INFORMATION SOCIETY EVENT

KDB was named project champion for Category 17: AL C10 Ethical Dimensions for Information Society by the WSIS Prizes 2020 organised by the International Telecommunication Union (ITU) in Geneva. The success recognised Malaysia, specifically MCMC, for the efforts in cultivating ethical Internet use in Malaysia.

The awards ceremony was held online on 7 September 2020 and KDB representatives were subsequently invited to share on the implementation of the programme at the WSIS 2020 Forum chaired by ITU Secretary General, His Excellency Houlin Zhao. The achievement was also celebrated in Malaysia where the certificate awarding ceremony to MCMC was graced by the Minister of Communications and Multimedia, YB Dato’ Saifuddin Abdullah at the Minister’s Office in Putrajaya on 7 October 2020.

KDB ACTIVITIES



Among MCMC State Office staff who conducted *Bicara Klik Dengan Bijak* that was implemented 100% online



The message on the declaration of the state of emergency in Malaysia was shared on KDB's social media platforms



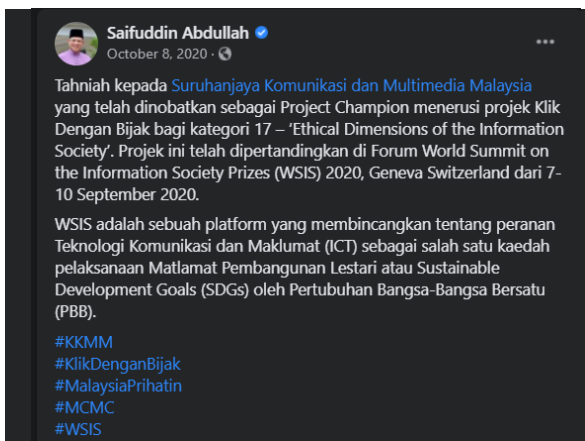
KDB had helped MIV With Community to promote the "Freedom of Speech is Not Freedom to Lie" campaign on responsible social media sharing



KDB had helped MIV With Community to promote the "Freedom of Speech is Not Freedom to Lie" campaign to curb the spread of fake news and information



Strategic collaboration between KDB and the Faculty of Information Science, Universiti Kebangsaan Malaysia (UKM) on a video and poster competition titled "Klik Dengan Bijak COVID-19 Information Management"



A congratulatory message from the KKMM Minister YB Dato' Saifuddin Abdullah on the recognition given by WSIS Prizes 2020 for the efforts made by KDB



WSIS Prizes 2020 certificate awarded to MCMC by the KKMM Minister YB Dato' Saifuddin Abdullah at the Minister's Office in the Ministry of Communications and Multimedia Malaysia, Putrajaya

NATIONWIDE DIGITAL TV BROADCAST

FREQUENCY RESTACKING

After successful transition from analogue TV to fully digital TV broadcasting in October 2019, MCMC has executed the frequency re-stacking exercise to release the Digital Dividend.

The analogue switch-off and the transition to digital TV broadcast released the 700MHz spectrum band which was previously used for analogue TV, whereas the spectrum for digital TV broadcasting was rearranged using the spectrum band below 694 MHz.

During the frequency restacking exercise, the audience were educated through various public service announcements to set the decoder to standby mode so as to not interfere with channel setting and minimise service interruption in reception of channels.

MCMC collaborated with KKMM, Department of Information Malaysia (JaPen), Radio Televisyen Malaysia (RTM), Bernama, TV Al-Hijrah, Media Prima Berhad, Botato Electronics Sdn Bhd, Green Packet Berhad and MYTV Broadcasting Sdn Bhd (MYTV) to plan the frequency restructuring work and implement a series of public announcements nationwide. Announcements were made through various TV and radio channels, TV crawlers, press releases, social media, websites as well as flyers distributed with the assistance of PIKs, MIV and MCMC State Offices.

The frequency restacking exercise for a total of 23 transmitter sites was successfully conducted by MYTV from 2 January to 28 June 2020 without any service disruption to myFreeview viewers.

The frequency restacking work released digital dividend whereby the 700 Mhz spectrum band can be repurposed for enhancement of high-speed mobile broadband services for the public.

KERJA-KERJA PENYUSUNAN SEMULA FREKUENSI SIARAN TV DIGITAL Freeview

Bagi penonton siaran tv digital myfreeview, sekiranya anda mengalami masalah penerimaan siaran, sila lakukan penalaan semula dekoder atau IDTV anda.

Hubungi 1800-18-1088 untuk bantuan lanjut.

Maklumat lanjut melalui  
www.myfreeview.tv





















Public service announcements through all myFreeview TV channels during the frequency restacking work

PANDUAN CARIAN SIARAN TV DIGITAL **myFreeview**

LANGKAH
01

Pilih butang **MENU** pada alat kawalan jauh anda



LANGKAH
02

Pilih **Carian Saluran Automatik** ATAU **Carian Saluran Manual** (Masukkan Frekuensi saluran mengikut kawasan anda dan tekan butang OK)



Tunggu sehingga carian selesai

LANGKAH
03



Nikmati Siaran Digital myFreeview!

LANGKAH
04

*Anda digalakkan untuk meletakkan dekoder dalam 'standby mode', jika anda tidak menonton myFreeview.

Maklumat lanjut melalui [f](https://www.facebook.com/myfreeview) [yt](https://www.youtube.com/myfreeview)
www.myfreeview.tv

Pusat Khidmat Pelanggan
1800-18-1088

SOALAN-SOALAN LAZIM

Mengapa penyusunan frekuensi ini perlu?

Penyusunan frekuensi ini adalah sejajar dengan perancangan **Suruhanjaya Komunikasi dan Multimedia Malaysia (SKMM)** untuk menyediakan frekuensi menerusi jalur 700 MHz bagi kegunaan perkhidmatan jalur lebar atau 5G. Proses ini melibatkan perubahan satu atau dua frekuensi sedia ada dari setiap stesen pemancar yang terlibat.

Bilakah kerja-kerja penyusunan semula frekuensi sistem siaran TV digital myFreeview akan dilakukan?

Kerja-kerja penyusunan semula frekuensi siaran TV digital myFreeview akan dilakukan secara berperingkat sehingga suku pertama tahun 2020. Hanya 23 daripada 44 stesen pemancar DTT yang terlibat di dalam proses ini. Rujuk di www.myfreeview.tv untuk maklumat berkaitan dengan senarai penyiar yang terlibat.

Bagaimana untuk mengetahui frekuensi yang sesuai?

Siaran digital myFreeview dihantar melalui **2 frekuensi** dari setiap stesen pemancar. Untuk menerima siaran digital myFreeview, dekoder DVB-T2 atau IDTV **haruslah menerima isyarat pemancaran digital** dari stesen pemancar yang berhampiran dengan menggunakan aerial UHF yang dipasang dengan cara yang betul. Talaan ini boleh dibuat secara automatik atau manual. Talaan secara automatik akan menerima kesemua saluran myFreeview. Sekiranya talaan dibuat secara manual, pengguna harus membuat dua kali penalaan untuk menerima frekuensi tersebut. Rujuk maklumat frekuensi di www.myfreeview.tv

Langkah – langkah penalaan

Ikuti panduan penalaan semula dekoder DVB-T2 atau IDTV anda seperti lampiran. Hubungi Pusat Khidmat Pelanggan di talian **1800-18-1088** untuk bantuan lanjut.

Maklumat lanjut melalui [f](https://www.facebook.com/myfreeview) [yt](https://www.youtube.com/myfreeview)
www.myfreeview.tv

Pusat Khidmat Pelanggan
1800-18-1088

Flyers distributed to the local community

NEW CHANNEL ON myFreeview

Two (2) new TV channels were launched on the myFreeview platform by public and private broadcasters in 2020. On 25 June 2020, the Minister of Communications and Multimedia Malaysia, YB Dato' Saifuddin Abdullah launched the " Saluran Berita RTM " which is available in Malay, English, Mandarin and Tamil languages. The Saluran Berita RTM is a 24-hour news channel on myFreeview channel 123 providing a variety of content comprising the latest news and talk shows to enrich the public with accurate information.



The Saluran Berita RTM was officially launched by Minister of Communications and Multimedia Malaysia, YB Dato' Saifuddin Abdullah

Another new channel known as Awesome TV began its trial broadcast on myFreeview channel 112 since 28 July 2020 and officially on air at 6am, 3 August 2020. Awesome TV provides various entertainment in the form of local and international contents including comedy, drama, talk shows, as well as cartoons for children. According to the CEO of Awesome TV, Dato' Adam Mohamed Ilyas, the channel recorded its highest daily viewership reach of over one million viewers in November 2020.

Throughout 2020, there were 30 free-to-air (FTA) channels covering 16 TV channels and 14 radio channels providing numerous contents through myFreeview platform as listed below:

No	Channel	Channel Number	Quality
1	TV1	101	High Definition
2	TV2	102	High Definition
3	TV3	103	High Definition
4	CJ Wow Shop	104	Standard Definition
5	Drama Sangat	105	Standard Definition
6	CJ Wow Shop (Mandarin)	106	Standard Definition
7	NTV7	107	Standard Definition
8	8TV	108	Standard Definition
9	TV9	109	Standard Definition
10	TV Okey	110	High Definition
11	RTM Sports	111	High Definition
12	Awesome TV	112	High Definition
13	TV Al-Hijrah	114	High Definition
14	Go Shop	120	High Definition
15	Bernamea	121	Standard Definition
16	Saluran Berita RTM	123	High Definition
17	Nasional FM	701	Digital
18	Traxx FM	702	Digital
19	Minnal FM	703	Digital
20	Ai FM	704	Digital
21	Klasik FM	705	Digital
22	Asyik FM/Salam FM	706	Digital
23	Sabah FM	707	Digital
24	Sabah V FM	708	Digital
25	Sarawak FM	709	Digital
26	Wai FM	710	Digital
27	Hot FM	721	Digital
28	Kool FM	722	Digital
29	Fly FM	723	Digital
30	One FM	724	Digital

16 TV channels and 14 radio channels on the myFreeview digital TV platform

All 16 TV channels are aired in digital with better quality and wider coverage as compared to the previous seven (7) analogue TV channels with restricted service coverage before Analogue Switch Off in 2019. The number of myFreeview channels is expected to continuously grow in the future and provides more free content for Malaysian viewers.

In addition, the audience can listen to as many as 14 public and private radio channels in digital quality via TV at home. The reach of radio channels can be further expanded through broadcasting on the myFreeview platform. Regional radio channels such as Sabah FM, Sabah V FM, Sarawak FM and Wai FM used to have limited coverage in FM radio broadcasting network, and the service can only be received in East Malaysia using a radio. Now, these regional radio channels can also be received nationwide through myFreeview digital TV broadcast.

SINGLE TELEVISION AUDIENCE MEASUREMENT – STAM

The broadcasting industry in Malaysia encounters growing challenge of changes in viewing habits across multiple platforms and devices due to affordable broadband subscription fees. The viewing across multiple platforms and devices has affected the accuracy of current audience measurement acquired by the broadcasting and advertising industries.

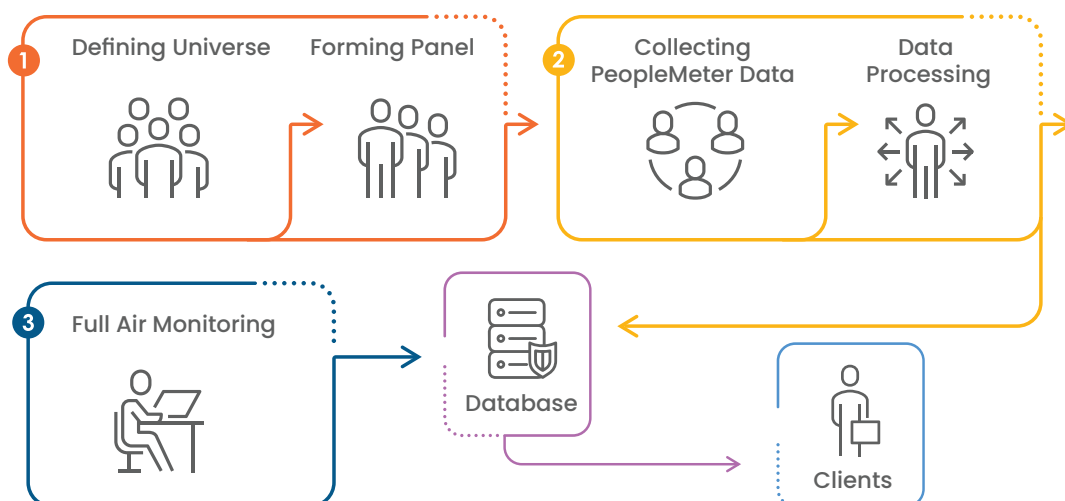
Currently, the audience measurements for pay TV and free-to-air (FTA) TV platforms are conducted in separate measurement systems without taking into account the viewership on new media platforms and mobile gadgets. This has resulted in incomprehensive audience measurement which affects the advertising revenues of broadcasting companies.

MCMC established a STAM Industry Working Group (IWG) in 2020 to develop a STAM framework. The IWG committees are made of industry stakeholders comprising local broadcasters, the Malaysian Advertisers Association (MAA), the Media Specialists Association (MSA) and the Malaysia Digital Association (MDA). The IWG has agreed to develop STAM as a single currency covering multiple platforms and devices to facilitate media buying and to increase advertising revenue.

IWG STAM has agreed for MCMC to gather information about STAM development in accordance with international practices to explore a suitable STAM implementation model in Malaysia. Subsequently, MCMC conducted a Request for Information (RFI) from 7 April to 15 May 2020 and successfully obtained feedback from reputable domestic and foreign audience measurement service providers. Based on the responses to RFI, MCMC will propose a framework for STAM development and implementation in Malaysia.

In the future, STAM will be able to accurately measure content viewership for pay TV and FTA TV across multiple platforms and devices for a fair and comprehensive measurement. Broadcasters and advertisers will be able to provide targeted content and advertisements more effectively to reach their target audience. Audience preferences and viewing behaviour can be identified through STAM measurement and will allow more content to be produced and broadcasted based on the demand of the audience.

TV Audience Measurement Scheme



BROADCAST MONITORING AND COMPLIANCE

MCMC remains committed in the effort to improve the level of compliance of the Content Application Service Provider - Individual (CASP-I) licensees by strengthening monitoring activities so that the content broadcasted reflects the culture, identity and norms of the Malaysian society, in line with CMA 1998 and Content Code.

In 2020, a total of 37 complaints related to the content of radio and television broadcasts were referred to MCMC. There were 18 complaints against free-to-air (FTA) Television, followed by 14 complaints against Subscription Television and five (5) complaints against radio, as shown in the table below:

Trend of Complaints Received According to Platform		
Platform	2019	2020
	Number of Complaints	
Free to Air Television	9	18
Subscription Television	19	14
Radio	12	5
Total Complaints	40	37

Trend of complaints according to platform

Of the 37 complaints received, sixteen (16) cases were about offensive content, three (3) cases were about menacing content, 14 cases were about false content, three (3) cases were about indecent and obscene content, and one (1) case was about live broadcast programme without prior approval from MCMC.

The following actions have been taken on the complaints referred to MCMC:

Enforcement Action	Quarter				Total Number of Complaints
	First	Second	Third	Fourth	
First Information Report	-	-	3	-	3
Reminder/Warning Letter	10	4	2	-	16
Show Cause Letter	-	5	4	1	10
No Breach	-	4	-	1	5
Investigation in Progress	-	-	-	3	3
Total Number of Complaints	10	13	9	5	37

Regulatory actions on complaints

APPROVAL FOR LIVE OR DELAYED BROADCAST

For live or delayed broadcast programmes, an application must be made by the CASP-I licensee for MCMC'S approval prior to broadcasting. In 2020, a total of 117 applications were received and approved. The following is the summary of the applications received by platform for each quarter.

Applications Received by Platform in 2020			
Quarter of Year	Free to Air Television	Subscription Television	Radio
First Quarter	16	1	5
Second Quarter	1	3	0
Third Quarter	18	6	2
Fourth Quarter	53	10	2
Total	88	20	9

Applications received by platform in 2020

PUBLIC SERVICE ANNOUNCEMENT (PSA)

A total of 143 PSAs were distributed in 2020 in the form of video/audio and scripts/live reads. Among the PSA materials distributed were those from KKMM, Malaysian National Film Development Corporation (FINAS), National Anti-Drug Agency (AADK), Credit Counseling & Management Agency (AKPK), Prime Minister's Department (JPM), Companies Commission of Malaysia (SSM), and Malaysian Digital Economy Corporation (MDEC),

Following the outbreak of COVID-19 pandemic in early 2020, many PSAs distributed for public information focused on COVID-19 news, MCOs, Government economic stimulus initiatives, information on hotspots, and SOPs for COVID-19 handling, among others.

BANTUAN PELAN DATA KEPADA PELAJAR IPT

- 320,396 pelajar B40 telah dan akan menerima bantuan dalam bentuk kad SIM atau wang tunai/baucar
- 225,784 unit kad SIM diagihkan kepada pelajar melalui kerjasama syarikat telekomunikasi, khususnya Yayasan YTL dan Lembaga Tabung Haji
- 94,612 pelajar akan dapat pembebasan tunai untuk melanggan plan data

JUMLAH PERUNTUKAN: RM3.8 JUTA

JUMLAH PERUNTUKAN: RM24 JUTA

INISIATIF TAMBAHAN:
Pakej Plan Data Interaktif Istimewa untuk pelajar IPT yang:
• tida dalam pasaran kini
• ditawarkan oleh:
celcom, digi, TM, maxis

Sumber: Kementerian Pengajian Tinggi
Diterbitkan: 26 Nov 2020
Infografik Bernama

Courtesy of Bernama

PERINTAH KAWALAN PERGERAKAN SELURUH NEGARA
MULAI 12 TENGAH MALAM INI
18 MAC 2020 - 31 MAC 2020

PERINTAH KAWALAN PERGERAKAN DIKUATKUASA BAGI MENGEKANG PENULARAN COVID-19

- Penutupan semua premis senjang dan swasta kecuali yang terlibat dengan pelaksanaan perniagaan
- Sekatan dibenarkan ke atas rakyat Malaysia ke luar negara
- Penutupan semua institusi pendidikan awam dan swasta, kecuali pusat latihan dan pusat latihan kejuruteraan

Larangan menyeluruh pergerakan dan perhimpunan ramai di seluruh negara termasuk di semua rumah ibadat dan premis perniagaan kecuali pusat raya, pasar awam, kedai runcit

#HapusCOVID19
#KekalTenang

Infografik oleh **Shahide ZulKiflee**
Sumber: Public Health Malaysia
© Astro AWANI Network Sdn. Bhd. (2020)

Courtesy of Astro

5 FAKTA VAKSIN

- Vaksin mencegah penyakit membawa maut**
Terdapat vaksin, seperti vaksin BCG, yang dapat mencegah penyakit berjangkit yang membawa maut.
- Vaksin selamat dan efektif**
Semua vaksin yang digunakan untuk mencegah penyakit berjangkit telah melalui ujian klinikal yang ketat untuk memastikan keselamatan dan keberkesanan.
- Vaksin memberi perlindungan segera**
Vaksin memberi perlindungan segera terhadap penyakit berjangkit semulajadi.
- Campuran beberapa vaksin adalah selamat dan berkesan**
Menerima beberapa vaksin berlainan yang sama dapat melindungi anda daripada penyakit berjangkit yang berbeza. Kita membolehkan anda dengan berkesan melindungi kesihatan anda.
- Jika kita hentikan imunisasi, penyakit boleh meningkat kembali**
Walaupun penyakit berjangkit yang berjangkit telah hilang, penyakit berjangkit boleh meningkat kembali.

Sumber: BMJ

Courtesy of Rakita

INDUSTRIAL CAPACITY DEVELOPMENT

In an effort to raise awareness of the broadcasting industry on offensive content, especially the use of abusive language, MCMC in collaboration with Dewan Bahasa dan Pustaka (DBP), Film Censorship Board (LPF), academicians and the Malaysian Communications and Multimedia Content Forum (CMCF) held the *Seminar Pematuhan Kandungan: Bahasa Kesat & Kandungan Jelik* (Content Compliance Seminar: Abusive Language & Obscene Content) on 22 September 2020 at the Marriot Hotel, Putrajaya.



MCMC also collaborated with Radio Television Malaysia (RTM) and Commercial Radio Malaysia (CRM) in celebrating World Radio Day. Held at Wisma Radio, Angkasapuri in Kuala Lumpur on 13 February 2020, its theme for the year was "Radio and Diversity". The purpose of this celebration, while promoting radio as an important method of communication, also served to recognise the importance of radio in enhancing community interaction, providing access to information and supporting freedom of speech.



Courtesy of RTM



COMMUNICATION MONITORING AND COMPLIANCE

MCMC is responsible for ensuring that telecommunication companies offer quality services and always comply with license conditions, the General Consumer Code of Practice and legal instruments under the CMA 1998.

PREPAID AUDIT ACTIVITY

For 2020, taking into account the COVID-19 pandemic situation, MCMC had conducted an "Online Prepaid Registration Audit" through the e-Commerce platform such as Shopee, Lazada; Mobile Application; and Service Provider's (SPs) Official Website to measure the compliance level of the SPs and its representatives (Dealers) on Prepaid Registration for Public Cellular Services.

Based on the audit conducted against 13 SPs and its Dealers a total of 82 SIM cards has been purchased and registered. Out of the total number, 27 SIM cards registered not as per the Guidelines which using image or photocopy of Identification documents without verifying the documents and identity of an individuals. There are also Preactivated SIM Card without proper registration. These offenses may stance a security risk and enforcement action has been taken on such violations.

VERIFICATION OF CUSTOMER DATA

Other than the audit activities, MCMC also conducted customer data verification processes with the National Registration Department (NRD) to verify the integrity of the prepaid subscribers' database collected in the course of registration. For the year 2020, a total of 156,953 prepaid lines were registered with inaccurate information. Out of that total, 105,923 lines were terminated and 51,030 were updated with valid information.

The table below shows the total number of the compounds issued to the Service Providers in the year 2020 for not complying to the Prepaid Registration Guidelines.

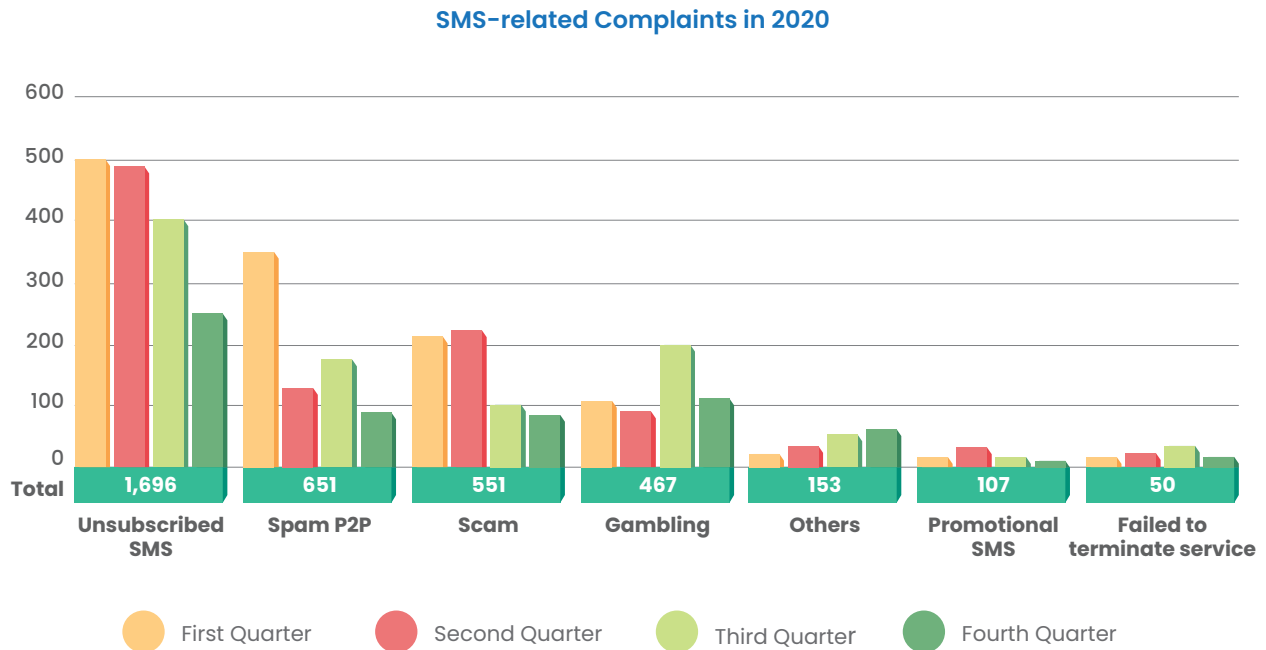
2020		
Service Provider	Total FIR	Total Compound (RM)
Digi Telecommunications Sdn Bhd	15	750,000
Maxis Broadband Sdn Bhd	17	850,000
Tune Talk Sdn Bhd	5	250,000
U Mobile Sdn Bhd	10	500,000
YTL Communications Sdn Bhd	4	190,000
Celcom Axiata Berhad	15	750,000
Tone Plus Sdn Bhd	1	10,000
XOX Com Sdn Bhd	3	150,00
Total	70	3,450,000

Total compound issued for the year 2020 for offenses under section 127 of the cma 1998

MOBILE CONTENT SERVICES (MCS)

MCMC received 3,675 SMS related complaints in 2020. Out of this total number 1,853 or 50% were MCS related. MCS complaints are divided into three (3) categories namely (i) unsubscribed SMS, (ii) promotional SMS and (iii) failed to terminate service.

The graph below shows the trend of SMS related complaints in 2020 per quarter:



MCS complaints were investigated and handled through the following two (2) methods:

a) **Enforcement of Mandatory Standards**

In 2020, MCMC identified a total of four (4) cases regarding various short code offences and investigation papers (IP) were opened. These cases were being investigated under the provisions of the CMA 1998.

b) **Administrative Action**

MCMC suspended short codes found to be in violation of the provisions in the Mandatory Standards. For 2020, MCMC suspended eight (8) short codes for various offences.

COMPLIANCE WITH CUSTOMER SERVICE QUALITY STANDARDS

In the fourth quarter of 2020, MCMC issued 30 non-compliance notices to 17 licensees for violating customer service quality standards and late submission of reports. Licensees were requested to submit justifications and action/mitigation plans. The non-compliance that was identified publicly was regarding the urgency in answering customer calls to the Hotline.

List of standards licensees failed to comply with, leading to the issuance of notices.

NOTIFICATION OF STANDARDS NON-COMPLIANCE

No	Standard	Number of Non-Compliance Notices			
		Quarter 1	Quarter 2	Quarter 3	Quarter 4
1	Late submission of report	-	1	-	-
2	Promptness in resolving customer complaints (unrelated to billing)	1	1	-	1
3	Promptness in resolving customer complaints (billing related)	-	1	-	2
4	Promptness in answering calls to customer hotlines	6	9	2	3
5	Complaints not related to billing for every 1,000 customers	1	3	-	1
6	Fulfillment recovery services	3	3	-	-
	Total	11	18	2	7

TERMINATION OF PHONE NUMBERS THAT MAKE FAKE CALLS TO 999 EMERGENCY LINE

In 2020, a total of 153 telephone numbers were terminated by eight (8) service providers involved, based on the provisions under section 263 (2) of the CMA 1998.

A total of five (5) warning letters were issued to individuals reported making fake emergency calls. These warning letters were issued for the first offense, for which MCMC assessed appeals made by the individuals involved, and withdrew the termination instruction of their phone number if their explanation were found to be reasonable.

MCMC opened five (5) investigation papers against several individuals who were identified for making fake emergency calls. These investigation papers were opened based on complaints received from the emergency service providers.

TERMINATION OF TELEPHONE LINES - ILLEGAL ADVERTISING

The issue of illegal or unauthorised advertising has raised concerns of the local authorities in Malaysia. This issue is seen to be actively increasing with the rampant displays of illegal advertisements especially in public areas, and affecting public view.

Pursuant to this issue, local authorities have intensified monitoring and enforcement actions to curb such activities. The local authorities have also partnered with MCMC to handle the termination process of the telephone lines displayed in the illegal advertisements.

In 2020, a total of 696 mobile phone numbers used in illegal advertising were received from various local authorities such as the Kuala Lumpur City Hall, Klang Municipal Council, Subang Jaya Municipal Council, Kubang Pasu Municipal Council and others to be processed for termination. Of that number, 493 telephone numbers were terminated, while 203 numbers were inactive.

Further details on telephone line termination are shown below.

Local Authority (PBT)	Number Received	Number Terminated	Number Not Processed/ Incomplete	Number Inactive
Klang Municipal Council (MPK)	43	30	0	13
Kubang Pasu Municipal Council (MPKP)	19	8	0	11
Kedah Commercial Crime Investigation Department (JSJK)	8	7	0	1
Sungai Petani Municipal Council (MPSPK)	10	8	0	2
Subang Jaya Municipal Council (MPSJ)	2	1	0	1
Kuala Lumpur City Hall (DBKL)	614	439	0	175
Total	696	493	0	203

Total telephone numbers terminated as of November 2020

INITIATIVE TO HELP WITH COVID-19 PUBLIC ANNOUNCEMENT VIA SMS

MCMC is working with NSC, MOH and service providers to disseminate information on the COVID-19 pandemic via short message service (SMS) to the public. This initiative which started on 26 February 2020 aims to ensure that the public does not overlook the latest status and gets accurate information about COVID-19 in Malaysia. The number of messages sent to mobile phone users in Malaysia in 2020 are as follows:

About	Amount
SMS Notification Type	212
Number of Service Providers Involved	13
Number of SMS Sent	8 billion

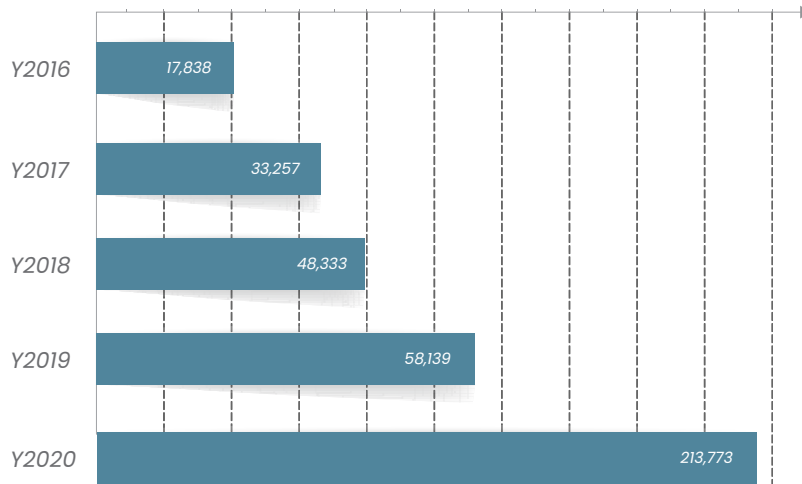
CONSUMER PROTECTION

In 2020, MCMC implemented various development and regulatory initiatives to empower consumer rights such as reviewing the Consumer Code of Practice (GCC), Mandatory Standards for Quality of Service (MSQoS), Prepaid Service Audits, the implementation of Billing Accuracy Audits and case referrals to other agencies which commonly involves technical and cybercrimes, especially hacking and phishing.

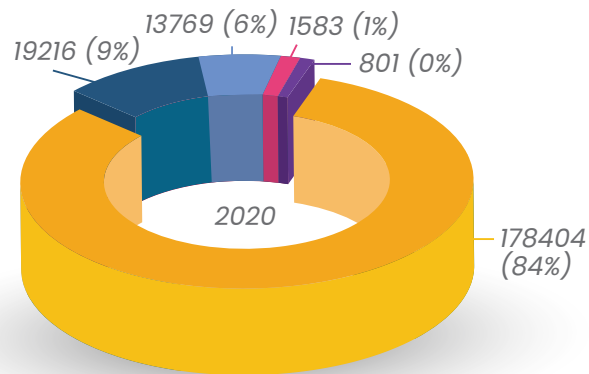
MCMC also developed Chatbot, the MCMC WhatsApp Tip-Off Service, to make it easier for users to provide information on 3R issues (race, royalty, and religion), COVID-19, SMS gambling and including scams.

COMPLAINT STATISTICS

In 2020, MCMC recorded a significant increase in complaints for services from the communications and multimedia industry with an increase of 268% (213,773 complaints) compared to the previous year (58,139 complaints).



Pattern of complaints received by MCMC 2016-2020

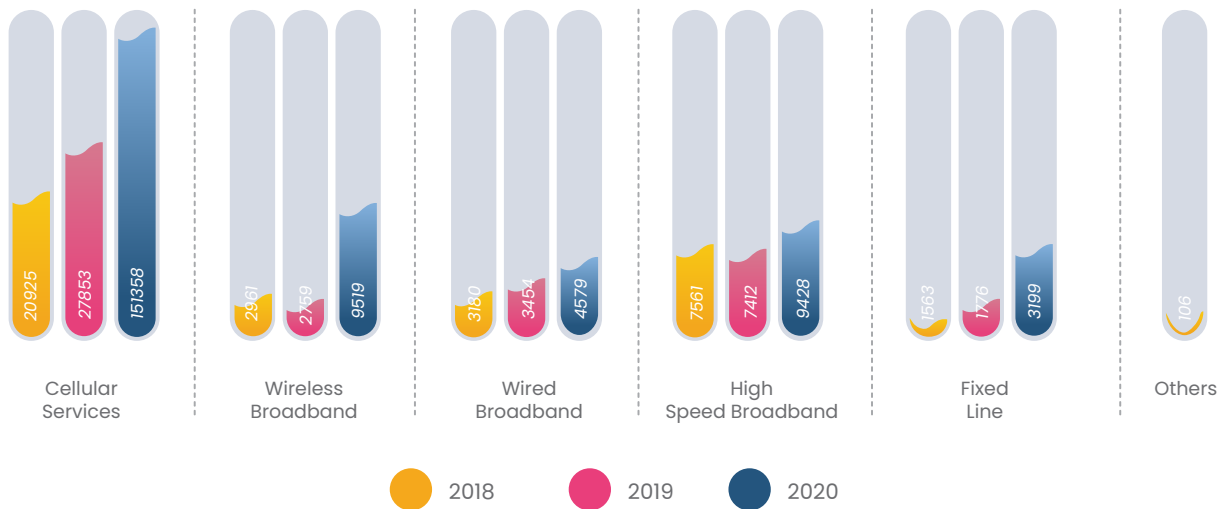


- New Media
- Broadcasting
- Telecommunications
- Postal & Courier
- MCMC Provision

Complaints based on industry

COMPLAINTS AGAINST THE TELECOMMUNICATIONS SECTOR

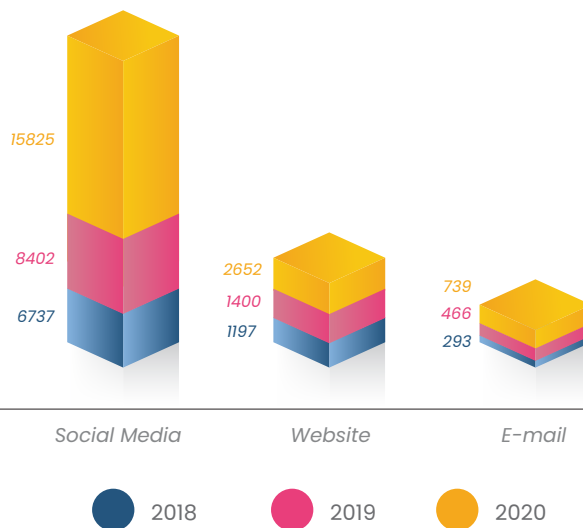
Complaints on cellular services increased significantly by 443% compared to the previous year, followed by 245% increase in wireless broadband complaints, 80% fixed line service complaints, 33% increase in broadband wired services complaints, 27% increase in high-speed broadband complaints and 154% increase in other services complaints. The announcement of the MCO contributed to the significant increase which altered the trend of broadband service usage in terms of location and needs.



Types of complaints against the telecommunications sector 2018-2020

NEW MEDIA COMPLAINTS

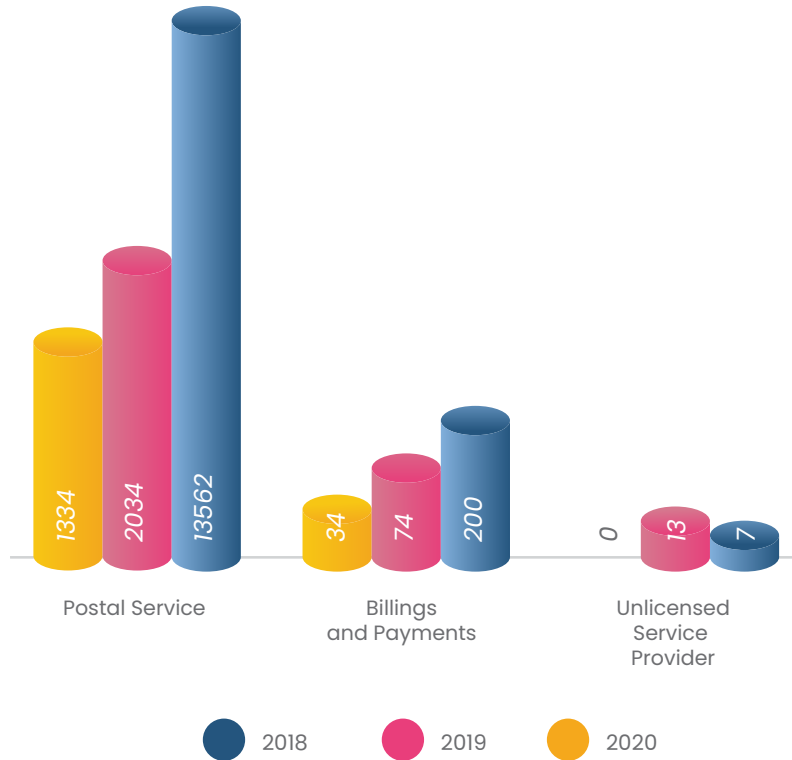
MCMC received 19,216 complaints related to new media from the public in 2020, an increase of 87% compared to 2019 (10,268).



Types of Complaints on New Media 2018-2020

COMPLAINTS AGAINST POSTAL AND COURIER SERVICES

In 2020, as the demand for postal and courier services increased due to online shopping trend during the MCO, there was a corresponding increase (567%) in the number of complaints received on this services.



Types of complaint on postal and courier services 2018–2020

The most common types of complaints were on postal services i.e. late delivery, lost letters/parcels and poor service quality which contributed 13,562 cases from the overall complaints in 2020. The other issues were on billing and payments with 200 cases and unlicensed service providers with 7 cases.

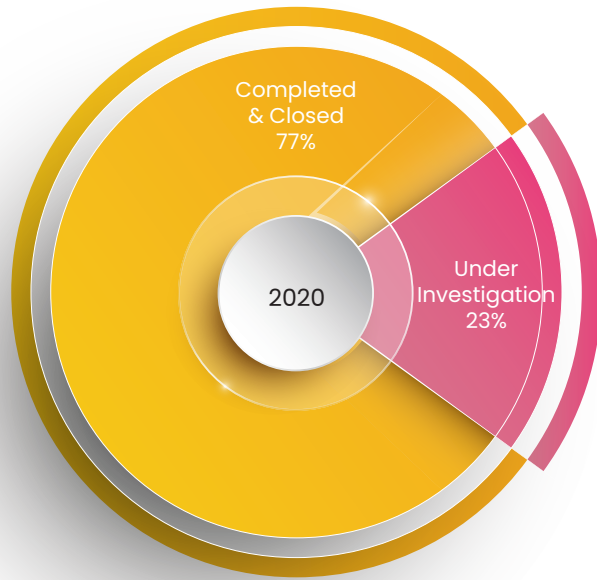
COMPLAINT RESOLUTION 2020

A total of 77% of the complaints received were resolved and closed. MCMC would propose the resolution for each complaint and will only close the case upon consent from the complainant.

MCMC issued two (2) investigation papers and five (5) letters of reminder under Section 188, CMA 98' to service providers for various non-compliances, such as misleading and inaccurate advertising material, misrepresentation of services to customers and unauthorised charges imposed on customer bill.

2021 onwards, MCMC is determined to ensure that all service providers improve their customer service quality towards building consumer trust in the communications and multimedia industry, ensuring the long-term sustainability of the industry.

MCMC will continue to strengthen regulatory aspects including undertaking efforts to improve industry guidelines and codes, intensify monitoring activities, forge strategic partnerships with stakeholders as well as enhance consumer education awareness programmes to ensure consumer rights are protected.



Complaint Resolution 2020



ENFORCEMENT

The MCMC Enforcement Division is responsible for ensuring that all enforcement activities are effectively and efficiently executed in accordance with the provisions of the laws under the CMA 1998, ATD 1997, APP 2012 and STA 2010 as well as the subsidiary laws thereunder.

Investigations are carried out on all offences under MCMC's provision of jurisdiction. A decrease of 61.6% compared to 2019 (651 cases), 250 cases were investigated in 2020. The categories of cases investigated in 2020 are as follows:

Category	Number of Cases	
	2019	2020
Social regulation	158	189
Technical regulation	72	39
Economic regulation	118	10
Consumer protection	303	12
Total	651	250

PROSECUTION IN COURT

Throughout January to December 2020, a total of 230 cases were brought to Court and of this number, a total of 173 cases or 75.2% were convicted in Court and were fined RM345,300.00 on all charges. As at 31 December 2020, a total of 57 cases were still pending in Court. Cases decided by the Court in 2020 recorded an increase compared to 2019 where only 75 charges were decided by the Court in that year.

The following are the number of charges that have been sentenced and the fines imposed by the Court in 2019 and 2020.

Category	Number of Charges (RM)		Total Fines (RM)	
	2019	2020	2019	2020
Social Regulation	7	149	40,250.00	227,300.00
Technical Regulation	68	24	447,000.00	118,300.00
Economic Regulation	-	-	-	-
Consumer Protection	-	-	-	-
Total	75	173	487,250.00	345,300.00

COMPOUND OFFER

In 2020, a total of 189 compound offers amounting to RM8.66 million were issued. The number of compounds increased by 8.3% compared to 2019. The following is the breakdown of offences with the value of the compound offer for 2020:

Types of Compounded Offences		Number of Compounds	Compound Offer (RM)
1	Cases of Economic Regulatory Offences	71	3,460,000
a	Fake registration	70	3,450,000
b	Provision of network facilities without a valid license	1	10,000
2	Cases of Consumer Regulatory Offences	103	4,724,000
a	Prohibition on the provision of obscene content	4	4,000
b	Non-compliance with mandatory standards: Public cellular service	27	1,350,000
c	Non-compliance with mandatory standards: Wired broadband access service	27	1,350,000
d	Non-compliance with mandatory standards: Wireless broadband access service	39	1,950,000
e	Compliance with licence conditions - broadcasting	6	70,000
3	Cases of Social Regulatory Offences	3	15,000
a	Sending obscene content via SMS applications	2	10,000
b	Delivery of pornographic content through WhatsApp application	1	5,000
4	Cases of Technical Regulatory Offences	12	461,000
a	Network facility breakdown	3	60,000
b	Use of spectrum without apparatus assignment (AA)	8	400,000
c	Sale of uncertified communications equipment	1	1,000
Total		189	8,660,000



FINANCIAL STATEMENTS

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05

FINANCIAL HIGHLIGHTS

FINANCIAL YEAR ENDED 31 DECEMBER 2020

The year 2020 ended as a very challenging year, not only to the government, the people and businesses but also to MCMC, due to the uncertain economic environment as a result of the COVID-19 pandemic. Nevertheless, the telecommunications sector, the broadcasting sector as well as the postal and courier sector regulated by MCMC have always been committed in ensuring the continuity of their respective operations in facing the COVID-19 pandemic.

For telecommunications, MCMC hand-in-hand with the industry implemented various initiatives and plans to accommodate the increase of usage by customers as well as to ensure the improved performance of network services, especially in critical areas. This is because mobile and fixed connectivity have become important with the new norm, encouraging Malaysians to take advantage of online connectivity be it employment or learning, as an effort to break the chain of the COVID-19 pandemic.

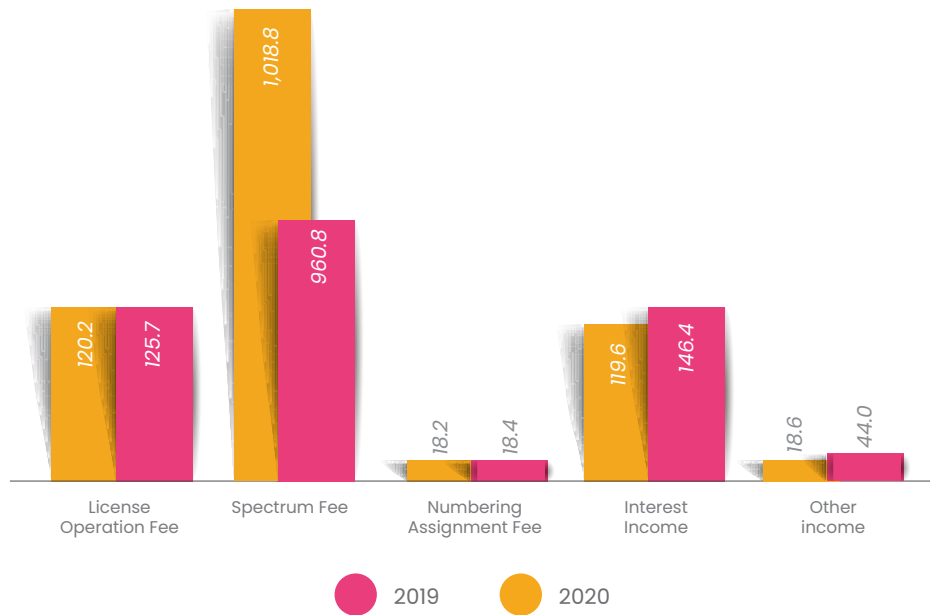
For the broadcasting sector, consumers were encouraged to take advantage of business channels through television and radio which were accessible through all platforms. As for postal and courier services, various efforts were made by the industry to accommodate the increased use of these services while reducing contact between staff and customers during delivery.

INCOME

For the financial year ended 2020, MCMC recorded a revenue of RM1.3 billion, similar to the amount recorded in 2019. While income on spectrum fee increased by 6.0% to RM1.02 billion compared to the previous year, interest income recorded a decrease of RM26.8 million or 18.3% due to the country's monetary policy which has reduced the Current Float Rate (OPR) of 1.0% in line with the Government's target to revive the country's economy.

Other incomes also recorded a decrease of 57.9% to RM18.6 million as a result of reversal of impairment losses on investment properties recorded in 2019 of RM23.8 million. The reversal was due to the fact that the fair value assessed by an independent valuer for one of MCMC's investment properties was higher than the current net value recorded after taking into account the impairment of properties previously recognised in the financial year 2016.

Income (RM* Million)



EXPENSES

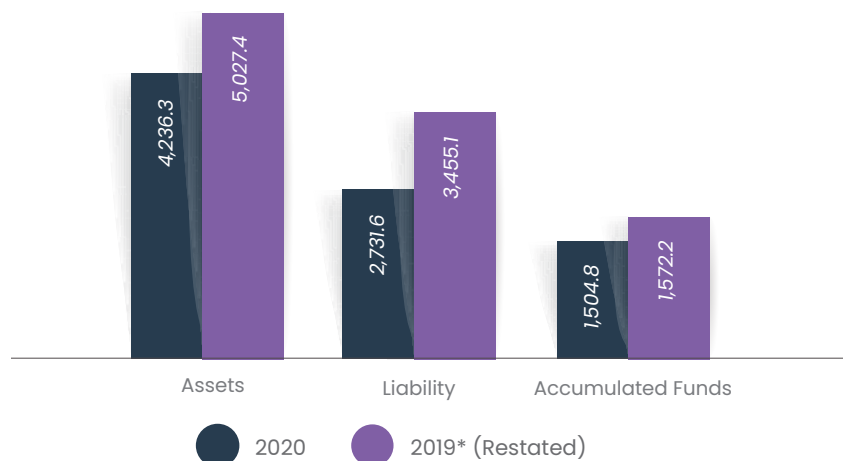
MCMC recorded an increase in total expenditure of RM708.5 million to RM1.01 billion compared to 2019. This increase in expenditure was mainly due to the payment of stimulus grants to assist in the implementation of the Digital Terrestrial Television (DTT) project in Malaysia. DTT is a Government initiative to improve TV and radio broadcasting services for the public through the transition from analog television broadcast to digital television broadcast. Asset depreciation decreased by 46% or RM20.9 million to RM24.6 million as a large number of assets had depreciated fully. In addition, MCMC recognised the expected credit loss (ECL)

amounting to RM10.5 million for the financial year ended 2020 compared to the previous year which had only recognised a withdrawal of the ECL on debtors of RM0.4 million. The impairment analysis was performed on each reporting dates using the allocation matrix for measuring the ECL. The allocation rates were based on the clustering of various licensee segments with similar loss patterns. The calculation indicated that the weighted outcome probability, time value of money, reasonable and believable information that were available at the reporting date regarding past events, current conditions and future economic forecasts.

POST-TAX SURPLUS REPRESENTS TOTAL RECOGNISED PROFIT

The after-tax surplus recognised in the financial year ended 2020 decreased by 73.7% or RM700.8 million to RM250.5 million compared to RM951.3 million in the previous year. In comparison, the after-tax surplus which represented the recognised profits declined mainly from the stimulus grant expenditure which was channelled to assist in the implementation of DTT projects in Malaysia.

Financial Statement (RM* Million)



ASSETS

MCMC closed the end of the financial year with assets totalling of RM4.2 billion compared to RM5.0 billion at the end of the previous financial year. The decline was driven by depreciation in other investments which included deposits placed with licensed banks in line with the increase in expenditure recorded in the financial year ended 2020.

Property values recorded a decrease of RM14.9 million compared to the previous year due to depreciation charges and impairment losses amounting to RM9.5 million and RM5.4 million respectively. MCMC performed a value impairment testing on its investment properties through registered independent valuers and had recognised this impairment loss as the carrying amount in one of its properties which was higher than the fair value determined by an independent valuer using the income method.

LIABILITIES

The liability position at the end of the financial year 31 December 2020 declined to RM2.7 billion compared to RM3.5 billion recorded in 2019. This decline was due to the provision of Goods and Services Tax Rebates paid to licensees providing prepaid public cell services amounting to RM669 million. In addition, accrued expenditure also recorded a decline of 36.2% or RM76.5 million to RM134.6 million. This decline was due to the reason that the bulk of the accrued expenses were paid in the financial year ended 2020.

ACCUMULATED FUNDS

For the financial year ended 2020, MCMC recorded a decline in its accumulated funds of 4.3% or RM67.5 million to RM1.5 billion despite an after-tax surplus of RM250.5 million. This decline was due to the disbursement of funds to the Government Consolidated Fund amounting to RM318 million in accordance with the provisions of 38 (2) (c) of the Malaysian Communications and Multimedia Commission (ASKMM) Act.



STATEMENT BY THE COMMISSION MEMBERS OF THE

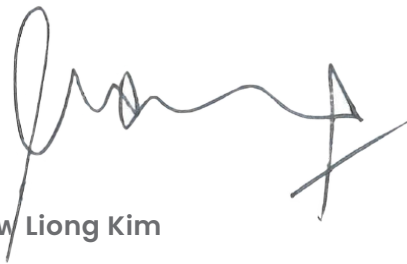
Malaysian Communications and Multimedia Commission

We, Dr. Fadhlullah Suhaimi bin Abdul; Malek and Chew Liong Kim, being two of the Commission Members of the Malaysian Communications and Multimedia Commission, do hereby state that in the opinion of the Members of the Commission, the financial statements set out on pages 156 to 202 are drawn up in accordance with Malaysian Financial Reporting Standards and International Financial Reporting Standards so as to give a true and fair view of the financial position of the Commission as of 31 December 2020 and of its income and expenditure and cash flows for financial year then ended.

Signed in accordance with a resolution by Commission Members of the Malaysian Communications and Multimedia Commission:



Dr. Fadhlullah Suhaimi bin Abdul Malek



Chew Liong Kim

Cyberjaya, Selangor
1 April 2021

MALAYSIAN COMMUNICATIONS AND MULTIMEDIA COMMISSION

Statutory Declaration

I, Nor Fadhilah Mohd Ali, the officer primarily responsible for the financial management of Malaysian Communications and Multimedia Commission, do solemnly and sincerely declare that the financial statements set out on pages 156 to 202 are, to the best of my knowledge and belief, correct and I make this solemn declaration conscientiously believing the same to be true, and by virtue of the provisions of the Statutory Declarations Act, 1960.

Subscribed and solemnly declared by the above named at Putrajaya, Wilayah Persekutuan on 7 April 2021.



Nor Fadhilah Mohd Ali

Before me:



AIMI ZAINURITHA & CO
Peguambela & Peguamcara
No. 22A, Tingkat 1,
Jalan Diplomatik, Presint 15,
32050 Wilayah Persekutuan Putrajaya
Tel: +6013-225 8885
Email: aimizaico@gmail.com

07 APR 2021

Independent Auditors' Report to the Commission Members of Malaysian Communications and Multimedia Commission

Report on the audit of the financial statements

Opinion

We have audited the financial statements of Malaysian Communications and Multimedia Commission (the "Commission"), which comprise the statement of financial position as at 31 December 2020, and statement of income and expenditure and recognised gains and losses and statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, as set out on pages 156 to 202.

In our opinion, the accompanying financial statement give a true and fair view of the financial position of the Commission as at 31 December 2020, and of its financial performance and cash flows for the year then ended in accordance with Malaysian Financial Reporting Standards and International Financial Reporting Standards.

Basis of opinion

We conducted our audit in accordance with approved standards on auditing in Malaysia and International Standards on Auditing. Our responsibilities under those standards are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Independence and other ethical responsibilities

We are independent of the Commission in accordance with the By-Laws (on Professional Ethics, Conduct and Practice) of the Malaysian Institute of Accountants ("By-Laws") and the International Ethics Standards Boards for Accountants' Code of Ethics for Professional Accountants ("IESBA Code"), and we have fulfilled our other ethical responsibilities in accordance with the By-Laws and the IESBA Code.

Information other than the financial statements and auditors' report thereon

The Commission Members are responsible for the other information. The other information comprises the annual report, but does not include the financial statements of the Commission and our auditors' report thereon. We expect the annual report to be made available to us after the date of the auditors' report.

Independent Auditors' Report to the Commission Members of Malaysian Communications and Multimedia Commission (contd.)

Information other than the financial statements and auditors' report thereon (contd.)

Our opinion on the financial statements of the Commission does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements of the Commission, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements of the Commission or our knowledge obtained in the audit or otherwise appears to be materially misstated .

When we read the annual report, if we conclude that there is a material misstatement therein, we are required to communicate the matter to the members of the Commission and take appropriate action.

Responsibilities of the members for the financial statements

The Commission Members are responsible for the preparation of financial statements of the Commission that give a true and fair view in accordance with the Malaysian Financial Reporting Standards and International Financial Reporting Standards. The Commission Members are also responsible for such internal control as the Commission Members determine is necessary to enable the preparation of financial statements of the Commission that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements of the Commission, the Commission Members are responsible for assessing the Commission's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the members either intend to liquidate the Commission or to cease operations, or have no realistic alternative but to do so.

Auditors' responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements of the Commission as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with approved standards on auditing in Malaysia and International Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Independent Auditors' Report to the Commission Members of Malaysian Communications and Multimedia Commission (contd.)

Auditors' responsibilities for the audit of the financial statements (contd.)

As part of an audit in accordance with approved standards on auditing in Malaysia and International Standards on Auditing, we exercise professional judgement and maintain professional scepticism throughout the audit. We also :

- Identify and assess the risks of material misstatement of the financial statements of the Commission, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Commission's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Commission Members.
- Conclude on the appropriateness of the members' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Commission's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements of the Commission or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Commission to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements of the Commission, including the disclosures, and whether the financial statements of the Commission represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the members of the Commission regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Independent Auditors' Report to the Commission Members of Malaysian Communications and Multimedia Commission (contd.)

Other matters

This report is made solely to the members of the Commission, as a body, in accordance with Section 47(2) of the Malaysian Communications and Multimedia Commission Act 1998 and for no other purpose. We do not assume responsibility to any other person for the content of this report.



Ernest & Young PLT
202006000003 (LLP0022760-LCA) & AF 0039
Chartered Accountants



Ong Chee Wai
No. 02857/ 07/ 2022 J
Chartered Accountant

Kuala Lumpur, Malaysia
1 April 2021

Statement of Financial Position

As at 31 December 2020

	Note	2020 RM'000	2019 RM'000 Restated
Assets			
Non-current assets			
Property, plant and equipment	3	256,769	270,694
Right-of-use asset	12	9,389	10,012
Investment properties	4	324,135	339,000
Intangible assets	5	2,305	5,362
		592,598	625,068
Current assets			
Fees and other receivables	7	25,869	14,065
Contract assets	13	11,362	11,175
Other investments	6	3,441,713	4,216,826
Cash and cash equivalents	8	164,078	160,231
Tax recoverable		712	-
		3,643,734	4,402,297
Total assets		4,236,332	5,027,365
Represented by:			
Accumulated funds	9	1,504,778	1,572,249
Liabilities			
Non-current liabilities			
Contract liabilities	10	1,958,395	2,136,708
Lease liabilities	12	7,014	7,693
		1,965,409	2,144,401
Current liabilities			
Contract liabilities	10	600,398	407,132
Lease liabilities	12	2,717	2,461
Other payables	11	163,030	896,221
Current tax payable		-	4,901
		766,145	1,310,715
Total liabilities		2,731,554	3,455,116
Total accumulated funds and liabilities		4,236,332	5,027,365

The notes form an integral part of these financial statements.

Statement of Income and Expenditure and Recognised Gains and Losses

For the year ended 31 December 2020

	Note	2020 RM'000	2019 RM'000
Income			
Operating licence fees	13	120,168	125,690
Spectrum fees	13	1,018,764	960,849
Numbering assignment fees	13	18,190	18,360
Interest income		119,635	146,387
Gain on disposal of property, plant and equipment		57	404
Reversal of impairment loss on investment properties	4	-	23,832
Rental income	4	18,046	18,447
Gain on disposal of right-of-use asset	12	11	-
Other income	14	438	1,352
		1,295,309	1,295,321
Expenditure			
Depreciation of property, plant and equipment	3	24,609	45,558
Property, plant and equipment written off	3	-	2,018
Depreciation of investment properties	4	9,448	9,155
Impairment loss on investment properties	4	5,417	13,367
Amortisation of intangible assets	5	4,128	6,847
Provision for/(reversal of) ECL on fee receivables	7	10,488	(430)
Provision for ECL on other receivables	7	-	180
Contract assets written off		742	508
Rebate entitlement expenses		4,924	17,333
Amortisation of right-of-use asset	12	3,089	2,749
Interest expenses	12	384	384
Employee benefit expenses	15	118,752	126,327
Administrative expenses		73,493	75,453
Audit fee		150	150
Rental expenses		2,367	3,534
Industry development grant expenses		60	160
GST rebates expenses	18	(5,316)	-
Projects expenses	19	(3,344)	(1,531)
Stimulus grant for the National Digitalisation Broadcasting project	20	764,000	-
Other expenses		1,581	4,709
		1,014,972	306,471

The notes form an integral part of these financial statements.

Statement of Income and Expenditure and Recognised Gains and Losses

For the year ended 31 December 2019 (contd.)

	Note	2020 RM'000	2019 RM'000
Surplus before tax		280,337	988,850
Tax expense	16	(29,808)	(37,520)
Surplus after tax representing total recognised gains	9	250,529	951,330

The notes form an integral part of these financial statements.

Statement of Cash Flows

For the year ended 31 December 2020

Note	2020 RM'000	2019 RM'000 Restated
Cash flows from operating activities		
Surplus before tax	280,337	988,850
Adjustments for:		
Depreciation of property, plant and equipment	24,609	45,558
Depreciation of investment properties	9,448	9,155
Amortisation of intangible assets	4,128	6,847
Depreciation of right-of-use asset	3,089	2,749
Impairment loss on investment properties	5,417	13,367
Reversal of impairment loss on investment properties	-	(23,832)
Gain on disposal of property, plant and equipment	(57)	(404)
Gain on disposal of right-of-use asset	(11)	-
Net addition/(reversal) of provision for ECL on fee receivables	10,488	(430)
Provision for ECL on other receivables	-	180
Property, plant and equipment written off	-	2,018
Interest expense on lease liabilities	384	384
Interest income	(119,635)	(146,387)
Operating surplus before changes in working capital	218,197	898,055
Changes in working capital:		
Contract liabilities	14,953	(165,382)
Contract assets	(187)	921
Fees and other receivables	(55,059)	17,987
Other payables and accrued expenses	(733,816)	(9,168)
Cash (used in)/generated from operations	(555,912)	742,413
Tax paid	(35,421)	(38,629)
Net cash (used in)/generated from operating activities	(591,333)	703,784

The notes form an integral part of these financial statements.

Statement of Cash Flows

For the year ended 31 December 2019 (contd.)

	Note	2020 RM'000	2019 RM'000 Restated
Cash flows from investing activities			
Acquisition of property, plant and equipment	(i)	(10,278)	(10,392)
Acquisition of intangible assets		(852)	(159)
Interest received		152,402	136,476
Proceeds from disposal of property, plant and equipment		57	404
Withdrawal/(placement) in other investments		775,113	(735,867)
Net cash generated from/(used in) investing activities		916,442	(609,538)
Cash flows from financing activities			
Net repayment of lease liabilities		(3,262)	(2,991)
Payments made to Consolidated Fund pursuant to Section 38(3) of Malaysian Communications and Multimedia Commission Act 1998 (Act 589)		(318,000)	-
Net cash used in financing activities		(321,262)	(2,991)
Net increase in cash and cash equivalents		3,847	91,255
Cash and cash equivalents at 1 January		160,231	68,976
Cash and cash equivalents at 31 December	8	164,078	160,231

(i) Acquisition of property, plant and equipment

During the year, the Commission acquired property, plant and equipment in the following manner:

	2020 RM'000	2019 RM'000
Property, plant and equipment		
Satisfied by cash payments	10,278	10,392
Payable to suppliers	625	467
	10,903	10,859

The notes form an integral part of these financial statements.

Notes to the Financial Statements

For the year ended 31 December 2020

1. Corporate information

The principal activities of the Malaysian Communications and Multimedia Commission (“Commission”) are to implement and to enforce the provisions of the communications and multimedia laws as stipulated in the Communications and Multimedia Act 1998 (Act 588) (“CMA”) and the Malaysian Communications and Multimedia Commission Act 1998 (Act 589) (“MCMCA”).

The Commission is a statutory body established under the MCMCA. The registered office of the Commission is located at MCMC Tower 1, Jalan Impact Cyber 6, 63000 Cyberjaya, Selangor Darul Ehsan.

The financial statements were approved and authorised for issue by the Commission’s Members on 1 April 2020.

2. Summary of significant accounting policies

The principal accounting policies applied in the preparation of these financial statements are set out below. These policies have been consistently applied to the years presented unless otherwise stated.

2.1 Basis of preparation

The financial statements of the Commission have been prepared in accordance with Malaysian Financial Reporting Standards (“MFRSs”) and International Financial Reporting Standards (“IFRSs”). At the beginning of the current financial year, the Commission adopted new and revised MFRS which are mandatory for financial periods beginning on or after 1 January 2020 as described fully in Note 2.2.

The financial statements have been prepared on the historical cost basis except as disclosed in the accounting policies below.

The financial statements are presented in Ringgit Malaysia (“RM”) which is also the functional currency of the Commission and all values are rounded to the nearest thousand (“RM’000”) except otherwise indicated.

2. Summary of significant accounting policies (contd.)

2.2 Changes in accounting policies

On 1 January 2020, the Commission adopted the following new and amended MFRSs mandatory for annual financial periods beginning on or after the dates stated below:

Description	Effective for annual periods beginning on or after
Amendments to MFRS 7, MFRS 9 and MFRS 139 Interest Rate Benchmark Reform	1 Januari 2020
Amendments to MFRS 101: Presentation of Financial Statements - Definition of Material	1 Januari 2020
Amendments to MFRS 108: Accounting Policies, Change in Accounting Estimates and Errors - Definition of Material	1 Januari 2020
Revised Conceptual Framework for Financial Reporting (the Conceptual Framework)	1 Januari 2020
Interest Rate Benchmark Reform (Amendments to MFRS 9, MFRS 139 and MFRS 7)	1 Januari 2020

The adoption of the amendments to MFRSs and the revised conceptual framework does not have any material impact on the financial statements in the period of initial application.

2. Summary of significant accounting policies (contd.)

2.3 Standards issued but not yet effective

The standards that are issued but not yet effective up to the date of issuance of the Commission's financial statements are disclosed below. The Commission intends to adopt these standards, if applicable, when they become effective.

Description	Effective for annual periods beginning on or after
COVID-19-Related Rent Concessions (Amendment to MFRS 16 Leases)	1 Jun 2020
Interest Rate Benchmark Reform – Phase 2 (Amendments to MFRS 9, MFRS 139 and MFRS 7)	1 Januari 2021
Amendments to Annual Improvements to MFRS Standards 2018–2020	1 Januari 2022
MFRS 9 Financial Instruments – Fees in the '10 per cent' test for derecognition of financial liabilities	1 Januari 2022
Property, Plant and Equipment–Proceeds before Intended Use (Amendments to MFRS 116 Property, Plant and Equipment)	1 Januari 2022
Onerous Contracts–Cost of Fulfilling a Contract (Amendments to MFRS 137 Provisions, Contingent Liabilities and Contingen Assets)	1 Januari 2022
Classification of Liabilities as Current or Non-current (Amendments to MFRS 101 Presentation of Financial Statements)	1 Januari 2023

The Commission Members expect that the adoption of the above standards will not have a material impact on the financial statements in the period of initial application.

2. Summary of significant accounting policies (contd.)

2.3 Financial assets

Initial recognition

Financial assets are classified, at initial recognition, as subsequently measured at amortised cost, fair value through other comprehensive income ("OCI") or fair value through profit or loss.

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Commission's business model for managing them. With the exception of fees receivables that do not contain a significant financing component or for which the Commission has applied the practical expedient, the Commission initially measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss, directly attributable transaction costs. Fees receivables that do not contain a significant financing component or for which the Commission has applied the practical expedient are measured at the transaction price determined under MFRS 15. Please refer to the accounting policies stated in Note 2.13.

2. Summary of significant accounting policies

2.4 Financial assets (contd.)

Initial recognition (contd.)

Purchases or sales of financial assets that require delivery of assets within a time frame established by regulation or convention in the market place (regular way trades) are recognised on the trade date, i.e., the date that the Commission commits to purchase or sell the asset.

In order for a financial asset to be classified and measured at amortised cost or fair value through OCI, it needs to give rise to cash flows that are 'solely payments of principal and interest ("SPPI")' on the principal amount outstanding. This assessment is referred to as the SPPI test and is performed at an instrument level.

The Commission's business model for managing financial assets refers to how it manages its financial assets in order to generate cash flows. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both.

Subsequent measurement

For purposes of subsequent measurement, financial assets are classified in four categories:

- (i) Financial assets at amortised cost (debt instrument);
- (ii) Financial assets at fair value through OCI with recycling of cumulative gains and losses (debt instruments);
- (iii) Financial assets designated at fair value through OCI with no recycling of cumulative gains and losses upon derecognition (equity instruments); or
- (iv) Financial assets at fair value through profit or loss.

2. Summary of significant accounting policies (contd.)

2.4 Financial assets (contd.)

Subsequent measurement (contd.)

The Commission categorises its financial assets based on the following:

(i) Financial assets at amortised cost

The Commission measures financial assets at amortised cost if both of the following conditions are met:

- The financial asset is held within a business model with the objective to hold financial assets in order to collect contractual cash flows; and
- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets at amortised cost are subsequently measured using the effective interest rate ("EIR") method and are subject to impairment. Gains and losses are recognised in profit or loss when the asset is derecognised, modified or impaired.

The Commission's fees and other receivables are categorised as financial assets at amortised cost.

(ii) Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss include financial assets held for trading, financial assets designated upon initial recognition at fair value through profit or loss, or financial assets mandatorily required to be measured at fair value. Financial assets are classified as held for trading if they are acquired for the purpose of selling or repurchasing in the near term. Financial assets with cash flows that are not solely payments of principal and interest are classified and measured at fair value through profit or loss, irrespective of the business model. Notwithstanding the criteria for debt instruments to be classified at amortised cost or at fair value through OCI, as described above, debt instruments may be designated at fair value through profit or loss on initial recognition if doing so eliminates, or significantly reduces, an accounting mismatch.

The Commission's other investments are categorised as financial assets at fair value through profit or loss.

2. Summary of significant accounting policies (contd.)

2.4 Financial assets (contd.)

Derecognition

A financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) is primarily derecognised (i.e., removed from the Commission's statement of financial position) when:

- (i) The rights to receive cash flows from the asset have expired; or
- (ii) The Commission has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a 'pass-through' arrangement; and either (a) the Commission has transferred substantially all the risks and rewards of the asset, or (b) the Commission has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

When the Commission has transferred its rights to receive cash flows from an asset or has entered into a pass-through arrangement, it evaluates if, and to what extent, it has retained the risks and rewards of ownership. When it has neither transferred nor retained substantially all of the risks and rewards of the asset, nor transferred control of the asset, the Commission continues to recognise the transferred asset to the extent of its continuing involvement. In that case, the Commission also recognises an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Commission has retained.

2.5 Financial liabilities

Initial recognition

Financial liabilities are classified according to the substance of the contractual arrangements entered into and the definitions of a financial liability.

Financial liabilities are recognised in the statement of financial position when, and only when, the Commission becomes a party to the contractual provisions of the financial instrument. The Commission's financial liabilities are classified as subsequently measured at amortised cost. The Commission has not designated any financial liabilities as at fair value through profit or loss.

Subsequent measurement

Trade and other payables are recognised initially at fair value plus directly attributable transaction costs and subsequently measured at amortised cost using the effective interest rate method.

2. Summary of significant accounting policies (contd.)

2.5 Financial liabilities (contd.)

Derecognition

A financial liability is derecognised when the obligation under the liability is extinguished. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognised in profit or loss.

2.6 Property, plant and equipment

All items of property, plant and equipment are initially recorded at cost. The cost of an item of property, plant and equipment is recognised as an asset if, and only if, it is probable that future economic benefits associated with the item will flow to the Commission and the cost of the item can be measured reliably.

Subsequent to recognition, property, plant and equipment except for freehold land are measured at cost less accumulated depreciation and accumulated impairment losses. When significant parts of property, plant and equipment are required to be replaced in intervals, the Commission recognises such parts as individual assets with specific useful lives and depreciation, respectively. Likewise, when a major inspection is performed, its cost is recognised in the carrying amount of the property, plant and equipment as a replacement if the recognition criteria are satisfied. All other repair and maintenance costs are recognised in profit or loss as incurred.

The present value of the expected cost for the dismantling and decommissioning of the asset after its use is included in the cost of the respective asset if the recognition criteria for a provision are met and is depreciated over the lease term.

2. Summary of significant accounting policies (contd.)

2.6 Property, plant and equipment (contd.)

Depreciation is calculated on a straight-line basis over the estimated useful lives of the assets as follows:

- | | |
|--------------------------------------|-------------|
| • Office and communication equipment | 6 - 7 years |
| • Computer equipment | 3 years |
| • Furniture and fittings | 6 - 7 years |
| • Motor vehicles | 5 years |
| • Buildings | 50 years |
| • Renovation | 3 years |

Freehold assets are not depreciated as these assets are not yet available for use and will be transferred to the relevant category of assets and depreciated accordingly when the assets are completed and ready for their intended use.

The carrying values of property, plant and equipment are reviewed for impairment when events or changes in circumstances indicate that the carrying values may not be recoverable.

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss on derecognition of the asset is included in the profit or loss in the year the asset is derecognised.

The residual value, useful life and depreciation method are reviewed at each reporting date, and adjusted prospectively, if appropriate.

2.7 Investment properties

Investment properties are properties which are owned to earn rental income or for capital appreciation or for both, but not for sale in the ordinary course of business, use in the production or supply of goods or services or for administrative purposes.

Investment properties are stated at cost less any accumulated depreciation and any accumulated impairment losses.

Depreciation is recognised in the statement of income and expenditure on a straight line basis at 2.5% per annum.

An investment property is derecognised on its disposal, or when it is permanently withdrawn from use and no future economic benefits are expected from its disposal. The difference between the net disposal proceeds and the carrying amount is recognised in profit or loss in the period in which the item is derecognised.

2. Summary of significant accounting policies (contd.)

2.8 Intangible assets

Intangible assets acquired separately are measured on initial recognition at cost. Following the initial recognition, intangible assets are carried at cost less accumulated amortisation and any accumulated impairment losses. Intangible assets with finite useful lives are amortised on a straight line basis over the estimated economic useful lives of three years and assessed for impairment whenever there is an indication that the intangible assets may be impaired. The amortisation period and the amortisation method for an intangible asset are reviewed at each reporting date, and adjusted prospectively, if appropriate.

The useful lives of intangible assets are assessed as either finite or indefinite. Intangible assets with finite useful lives are amortised on a straight-line basis over the economic useful lives and assessed for impairment whenever there is an indication that the intangible may be impaired. The amortisation period and method are reviewed at least at each financial year end. Changes in the expected useful lives or the expected pattern of consumption of future economic benefits embodied in the asset are accounted for by changing the amortisation period or method and treated as changes in accounting estimates. The amortisation expense on intangible assets with finite lives is recognised in profit or loss.

2.9 Leases

The Commission assesses at contract inception whether a contract is, or contains, a lease, that is, if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

Commission as lessee

The Commission applies a single recognition and measurement approach for all leases, except for short-term leases and leases of low-value assets. The Commission recognises lease liabilities to make lease payments and right-of-use assets representing the right to use the underlying assets.

2. Summary of significant accounting policies (contd.)

2.9 Leases (contd.)

Commission as lessee (contd.)

(i) Right-of-use assets

The Commission recognises right-of-use assets at the commencement date of the lease (i.e., the date the underlying asset is available for use). Right-of-use assets are measured at cost, less any accumulated depreciation and impairment losses, and adjusted for any remeasurement of lease liabilities. The cost of right-of-use assets includes the amount of lease liabilities recognised, initial direct costs incurred, and lease payments made at or before the commencement date less any lease incentives received. Right-of-use assets are depreciated on a straight-line basis over the shorter of the lease term and the estimated useful lives of the assets, as follows:

• Copiers	5 years
• Office	2 to 9 years
• National Spectrum Monitoring (“NASMOC”) equipment	2 to 11 years

If ownership of the leased asset transfers to the Commission at the end of the lease term or the cost reflects the exercise of a purchase option, depreciation is calculated using the estimated useful life of the asset. The right-of-use assets are also subject to impairment. Refer to the accounting policies in Note 2.18 Impairment of non-financial assets.

(ii) Lease liabilities

At the commencement date of the lease, the Commission recognises lease liabilities measured at the present value of lease payments to be made over the lease term. The lease payments include fixed payments (including insubstance fixed payments) less any lease incentives receivable, variable lease payments that depend on an index or a rate, and amounts expected to be paid under residual value guarantees. The lease payments also include the exercise price of a purchase option reasonably certain to be exercised by the Commission and payments of penalties for terminating the lease, if the lease term reflects the Commission exercising the option to terminate. Variable lease payments that do not depend on an index or a rate are recognised as expenses (unless they are incurred to produce inventories) in the period in which the event or condition that triggers the payment occurs.

2. Summary of significant accounting policies (contd.)

2.9 Leases (contd.)

Commission as lessee (contd.)

(ii) Lease liabilities (contd.)

In calculating the present value of lease payments, the Commission uses its incremental borrowing rate at the lease commencement date because the interest rate implicit in the lease is not determinable. After the commencement date, the amount of lease liabilities is increased to reflect the accretion of interest and reduced for the lease payments made. In addition, the carrying amount of lease liabilities is remeasured if there is a material modification, a material change in the lease term, a material change in the lease payments (e.g., changes to future payments resulting from a change in an index or rate used to determine such lease payments) or a change in the assessment of an option to purchase the underlying asset.

(iii) Short-term leases and leases of low-value assets

The Commission applies the short-term lease recognition exemption to its short term leases of office equipment (i.e., those leases that have a lease term of 12 months or less from the commencement date and do not contain a purchase option). It also applies the lease of low-value assets recognition exemption to leases of office equipment that are considered to be low value. Lease payments on short-term leases and leases of low-value assets are recognised as expense on a straight-line basis over the lease term.

Commission as a lessor

Leases in which the Commission does not transfer substantially all the risks and rewards incidental to ownership of an asset are classified as operating leases. Rental income arising is accounted for on a straight-line basis over the lease terms and is included in revenue in the statement of profit or loss due to its operating nature. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognised over the lease term on the same basis as rental income. Contingent rents are recognised as revenue in the period in which they are earned.

2.10 Cash and cash equivalents

Cash and cash equivalents consist of cash on hand, balances and deposits with banks and highly liquid investments which have an insignificant risk of changes in fair value with original maturities of three months or less, and are used by the Commission in the management of their short term commitments.

2. Summary of significant accounting policies (contd.)

2.11 Impairment of financial assets

The Commission recognises an allowance for expected credit loss (“ECL”) for all debt instruments not held at fair value through profit or loss. ECL is based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Commission expects to receive.

ECL is recognised in two stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECL is provided for credit losses that result from default events that are possible within the next 12-months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL).

For fees receivables, the Commission applies a simplified approach in calculating ECL. Therefore, the Commission does not track changes in credit risk, but instead recognises a loss allowance based on lifetime ECL at each reporting date. The Commission has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the licensees and the economic environment.

A financial asset is written off when there is no reasonable expectation of recovering the contractual cash flows.

2. Summary of significant accounting policies (contd.)

2.12 Employee benefits

(i) Short-term employee benefits

Wages, salaries, bonuses and social security contributions are recognised as an expense in the year in which the associated services are rendered by employees of the Commission. Short term accumulating compensated absences such as paid annual leave are recognised when services are rendered by employees that increase their entitlement to future compensated absences. Short term non-accumulating compensated absences such as sick leave are recognised when the absences occur.

(ii) Defined contribution plans

Defined contribution plans are post-employment benefit plans under which the Commission pays fixed contributions into separate entities or funds and will have no legal or constructive obligation to pay further contributions if any of the funds do not hold sufficient assets to pay all employee benefits relating to employee services in the current and preceding financial years. Such contributions are recognised as an expense in profit or loss as incurred. As required by law, entities in Malaysia make such contributions to the Employees Provident Fund ("EPF").

2.13 Revenue from contracts with customers

The Commission is the regulatory body of the communications and multimedia industry. Revenue from contracts with its licensees is recognised when control of the services are transferred to the licensees at an amount that reflects the consideration to which the Commission expects to be entitled in exchange for those services.

(i) Operating licence fees

Income relating to granting of operating licence are recognised when (or as) the Commission satisfies over time, a performance obligation by transferring a promised service (i.e. a license) to the licensee. The right to use the license is transferred when (or as) the licensee obtains control of that license.

Income relating to the application fee of individual license are recognised at the point in time when the Commission approves and processes the application of the interested licensees.

2. Summary of significant accounting policies (contd.)

2.13 Revenue from contracts with customers (contd.)

(ii) Spectrum fees

Spectrum fees consist of apparatus and spectrum assignment fees. There is a performance obligation by transferring a promised service (i.e. the right to operate in the spectrum) to the licensee and the income from apparatus and spectrum assignment fees are recognised over the license period (i.e. over time) which has a tenure ranging from 1 to 16 years. An asset is transferred when the licensee obtains the control to operate in the spectrum.

Income relating to the application fee of apparatus assignments are recognised at the point in time when the Commission approves and processes the application of the interested licensees.

(iii) Numbering assignment fees

There is a performance obligation by transferring a promised service (i.e. the right to use the number assignments) to the licensee and the income from numbering assignment is recognised over the agreed time frame (i.e. over time). An asset is transferred when the licensee obtains the control to use the number assignments.

Income relating to the application fee of numbering assignments are recognised at the point in time when the Commission approves and processes the application of the interested licensees.

(iv) Interest income

Interest income is recognised on a time proportion basis that reflects the effective yield on the asset, unless recoverability is in doubt, in which case, it is recognised on receipt basis.

2.14 Contract balances

(i) Contract assets

Contract asset is the Commission's right to consideration in exchange for granting operating licenses to the licensees.

Billings to licensees are performed at the end of the licensees' anniversary date for the license. As the revenue from operating licenses are recognised over time, however, the Commission has accrued the license income but has not billed the licensees. This unbilled license income gives rise to a contract asset. Upon billing to licensees at the end of the anniversary, the amount recognised as contract assets is reclassified to fees receivables.

2. Summary of significant accounting policies (contd.)

2.14 Contract balances (contd.)

(ii) Contract liabilities

A contract liability is recognised if a payment is received or a payment is due (whichever is earlier) from a licensee at the beginning of its anniversary date or before the Commission grants the related operating licenses, spectrum or numbering assignments to the licensees or assignment holders. Contract liabilities are recognised as revenue over the license period.

2.15 Income Tax

Income tax expense is in respect of tax on interest and rental income earned during the financial year. All other income is exempted from taxation as the Commission is tax exempt under Section 127(3)(b) of the Income Tax Act, 1967.

Income tax expense comprises current tax. Current tax is recognised in the statement of income and expenditure.

Current tax is the expected tax payable or receivable on the taxable income or loss for the year, using tax rates enacted or substantively enacted by the end of the reporting period, and any adjustment to tax payable in respect of previous financial years.

2.16 Fair value measurement

The Commission measures financial instruments and non-financial assets at fair value at each reporting date.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either:

- (i) In the principal market for the asset or liability; or
- (ii) In the absence of a principal market, in the most advantageous market for the asset or liability.

2. Summary of significant accounting policies (contd.)

2.16 Fair value measurement (contd.)

The principal or the most advantageous market must be accessible to or by the Commission.

The fair value of an asset or liability is measured using the assumptions that the market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participants that would use the asset in its highest and best use.

The Commission uses valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximising the use of relevant observable inputs and minimising the use of unobservable inputs.

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorised within the fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

- (i) Level 1 - the fair value is measured using quoted prices (unadjusted) in active markets for identical assets or liabilities.
- (ii) Level 2 - the fair value is measured using inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).
- (iii) Level 3 - the fair value is measured using inputs for the asset or liability that are not based on observable market data (unobservable inputs).

For assets and liabilities that are recognised in the financial statements on a recurring basis, the Commission determines whether transfers have occurred between Levels in the hierarchy by re-assessing categorisation (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period.

2. Summary of significant accounting policies (contd.)

2.17 Provisions

Provisions are recognised when the Commission has a present obligation as a result of a past event and it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate of the amount can be made. Provisions are reviewed at each reporting date and adjusted to reflect the current best estimate. Where the effect of the time value of money is material, provisions are discounted using a current pre-tax rate that reflects, where appropriate, the risks specific to the liability. Where discounting is used, the increase in the provision due to the passage of time is recognised as finance cost.

2.18 Impairment of non-financial assets

The Commission assesses, at each reporting date, whether there is an indication that an asset may be impaired. If any indication exists, or when annual impairment testing for an asset is required, the Commission estimates the asset's recoverable amount. An asset's recoverable amount is the higher of an asset's or cash generating unit's ("CGU") fair value less costs to sell and its value in use. Recoverable amount is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. When the carrying amount of an asset or CGU exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount. For the purpose of impairment assessment, assets are grouped at the lowest level for which there is separately identifiable cash flows.

Impairment losses of continuing operation are recognised in statement of income and expenditure in those expense categories consistent with the function of the impaired asset.

An assessment is made at each reporting date to determine whether there is an indication that previously recognised impairment losses no longer exist or have decreased. If such indication exists, the Commission estimates the asset's or CGU's recoverable amount. A previously recognised impairment loss is reversed only if there has been a change in the assumptions used to determine the asset's recoverable amount since the last impairment loss was recognised. The reversal is limited so that the carrying amount of the asset does not exceed its recoverable amount, nor exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognised for the asset in prior years. Such reversal is recognised in profit or loss unless the asset is carried at a revalued amount, in which case, the reversal is treated as a revaluation increase.

2. Summary of significant accounting policies (contd.)

2.19 Current and non-current classification

The Commission presents assets and liabilities in the statement of financial position based on current and non-current classification.

An asset is classified as current when it is:

- expected to be realised or intended to be sold or consumed in normal operating cycle;
- held primarily for the purpose of trading;;
- expected to be realised within 12 months after the reporting period; or
- cash and cash equivalents unless restricted from being exchanged or used to settle a liability for at least 12 months after the reporting period.

All other assets are classified as non-current.

A liability is classified as current when:

- it is expected to be settled in normal operating cycle;
- it is held primarily for the purpose of trading;
- it is due to be settled within 12 months after the reporting period; or
- there is no unconditional right to defer the settlement of the liability for at least 12 months after the reporting period.

All other liabilities are classified as non-current.

2.20 Significant accounting judgements and estimates

The preparation of the Commission's financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities at the reporting date. However, uncertainty about these assumptions and estimates could result in outcomes that could require a material adjustment to the carrying amount of the asset or liability affected in the future.

(i) Critical judgements made in applying accounting policies

There were no critical judgements made in applying the accounting policies of the Commission which may have significant effects on the amounts recognised in the financial statements.

(ii) Key sources of estimation uncertainty

The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

2. Summary of significant accounting policies (contd.)

2.20 Significant accounting judgements and estimates (contd.)

(ii) Key sources of estimation uncertainty

(a) Provision for expected credit losses ("ECL") for fees receivables

The Commission uses a provision matrix to calculate ECL for fee receivables. The provision rates are based on days past due for groupings of various licensees segments that have similar loss patterns.

The provision matrix is initially based on the Commission's historical observed default rates. The Commission will calibrate the matrix to adjust the historical credit loss experience with forward-looking information. For instance, if forecast economic conditions (i.e., overnight policy rate) are expected to deteriorate over the next year which can lead to an increased number of defaults, the historical default rates are adjusted. At every reporting date, the historical observed default rates are updated and changes in the forward-looking estimates are analysed.

The provision matrix was calibrated using the linear regression. The ECL, which is the dependent variable in the model, is computed by applying the regression coefficients to the independent variables, i.e. macroeconomic factors. The regression coefficients are derived from analyzing the relationships between the actual historical losses incurred on trade receivables, and the historical movements in the macroeconomic factors. A prerequisite of the selection of the macroeconomic factors to be used in the model is the existence of a strong correlation between the variables. Based on the Commission's analysis, the Commission concluded that overnight policy rates ("OPR") show a strong correlation with the actual historical losses on incurred on trade receivables, and hence was selected to be used in the ECL model.

The assessment of the correlation between historical observed default rates, forecast economic conditions and ECL is a significant estimate. The amounts of ECL are sensitive to changes in circumstances and of forecast economic conditions. The Commission's historical credit loss experience and forecast of economic conditions may also not be representative of licensees actual default in the future.

The information about the ECL on the Commission's fees receivables is disclosed in Note 7.

2. Summary of significant accounting policies (contd.)

2.20 Significant accounting judgements and estimates (contd.)

(ii) Key sources of estimation uncertainty (contd.)

(b) Useful lives of property, plant and equipment, investment properties and intangible assets

The Commission estimates the useful lives of property, plant and equipment, investment properties and intangible assets based on the period over which the assets are expected to be available for use. The estimated useful lives of property, plant and equipment, investment properties and intangible assets are reviewed periodically and are updated if expectations differ from previous estimate due to physical wear and tear, technical or commercial obsolescence and legal or other limits on the use of the assets. Changes in expected level of usage and economic development could impact the economic useful lives and the residual values of these assets, and hence future depreciation charges on such assets could be revised..

(c) Determining the lease term of contracts with renewal and termination options – Commission as a lessee

The Commission determines the lease term as the non-cancellable term of the lease, together with any periods covered by an option to extend the lease if it is reasonably certain to be exercised, or any periods covered by an option to terminate the lease, if it is reasonably certain not to be exercised.

The Commission has several lease contracts that include extension and termination options. The Commission applies judgement in evaluating whether it is reasonably certain to exercise the option to renew the lease. It considers all relevant factors that create an economic incentive for it to exercise the renewal. After the commencement date, the Commission reassesses the lease term if there is a significant event or change in circumstances that is within its control and affects its ability to exercise or not to exercise the option to renew or to terminate.

2.20 Significant accounting judgements and estimates (contd.)

(ii) Key sources of estimation uncertainty (contd.)

(d) Incremental borrowing rate for leases

The Commission cannot readily determine the interest rate implicit in the lease, therefore it uses the incremental borrowing rate ("IBR") to measure lease liabilities. The IBR is the rate of interest that the Commission would have to pay to borrow over a similar term, and with a similar security, the funds necessary to obtain an asset of a similar value to the right-of-use asset in a similar economic environment. The IBR therefore reflects what the Commission 'would have to pay', which requires estimation when no observable rates are available or when they need to be adjusted to reflect the terms and conditions of the lease. The Commission estimates the IBR using observable inputs (such as market interest rates) when available and is required to make certain entity-specific estimates (such as the Commission's stand-alone credit rating).

3. Property, plant and equipment

	Office and communication equipment RM'000	Computer equipment RM'000	Furniture and fittings RM'000	Motor vehicles RM'000	Freehold land RM'000	Buildings RM'000	Renovation RM'000	Capital work-in progress RM'000	Total RM'000
Cost									
At 1 January 2020	15,367	368,452	3,373	14,244	10,873	260,633	9,393	591	682,926
Additional	981	3,011	345	705	-	-	22	5,839	10,903
Disposals	-	-	-	(325)	-	-	-	-	(325)
Reclassification	-	836	-	-	-	-	1,497	(2,333)	-
Transfer to intangible assets (Note 5)	-	-	-	-	-	-	-	(219)	(219)
At 31 December 2020	16,348	372,299	3,718	14,624	10,873	260,633	10,912	3,878	693,285
Accumulated depreciation									
At 1 January 2020	10,841	349,513	2,633	10,234	-	33,199	5,812	-	412,232
Charge for the year	1,856	13,767	251	1,622	-	5,213	1,900	-	24,609
Disposals	-	-	-	(325)	-	-	-	-	(325)
At 31 December 2020	12,697	363,280	2,884	11,531	-	38,412	7,712	-	436,516
Net carrying amount as at 31 December 2020	3,651	9,019	834	3,093	10,873	222,221	3,200	3,878	256,769

3. Property, plant and equipment (contd.)

	Office and communication equipment RM'000	Computer equipment RM'000	Furniture and fittings RM'000	Motor vehicles RM'000	Freehold land RM'000	Buildings RM'000	Renovation RM'000	Capital work-in progress RM'000	Total RM'000
Cost									
At 1 January 2019	16,604	365,314	5,019	15,016	10,873	260,633	7,382	1,304	682,145
Additions	443	2,021	183	1,158	-	-	-	7,054	10,859
Disposals	-	-	-	(1,930)	-	-	-	-	(1,930)
Write-off	(1,866)	(953)	(1,829)	-	-	-	(1,491)	-	(6,139)
Reclassification	186	2,070	-	-	-	-	3,502	(5,758)	-
Transfer to intangible assets (Note 5)	-	-	-	-	-	-	-	(2,009)	(2,009)
At 31 December 2019	15,367	368,452	3,373	14,244	10,873	260,633	9,393	591	682,926
Accumulated depreciation									
At 1 January 2019	9,981	316,464	3,299	10,497	-	27,986	4,498	-	372,725
Charge for the year	1,912	34,002	290	1,667	-	5,213	2,474	-	45,558
Disposals	-	-	-	(1,930)	-	-	-	-	(1,930)
Write-off	(1,052)	(953)	(956)	-	-	-	(1,160)	-	(4,121)
At 31 December 2019	10,841	349,513	2,633	10,234	-	33,199	5,812	-	412,232
Net carrying amount as at 31 December 2019	4,526	18,939	740	4,010	10,873	227,434	3,581	591	270,694

4. Investment properties

	2020 RM'000	2019 RM'000
Cost		
At 1 January/31 December	472,092	472,092
Accumulated depreciation		
At 1 January	45,335	36,180
Charge for the year	9,448	9,155
At 31 December	54,783	45,335
Accumulated impairment loss		
At 1 January	87,757	98,222
Charge for the year	5,417	13,367
Reversal of impairment loss	-	(23,832)
At 31 December	93,174	87,757
Net carrying amount		
At 31 December	324,135	339,000
Fair value of investment properties	331,000	339,000

The following is recognised in the statement of income and expenditure in respect of the investment properties:

	2020 RM'000	2019 RM'000
Rental income	18,046	18,447
Rental related expenditure	(8,712)	(8,958)

4.1 Fair value information

Fair value of investment properties are categorised as follows:

	Level 3	
	2020 RM'000	2019 RM'000
Land and building	331,000	339,000

During the current financial year, the Commission has engaged an independent valuer with recognised qualifications and relevant experience to assess the fair values of the investment properties. Based on its assessment, there is an indication of impairment to the value of one of the investment properties. The fair value for this property was then determined based on the income approach method.

4. Investment properties (contd.)

4.1 Fair value information (contd.)

In assessing the fair values using the income approach, the independent valuer considered inputs such as monthly gross rental per square feet and monthly maintenance cost per square feet. These inputs were adjusted from its base value derived from existing rental agreements and historical information maintained by the Commission. The values were then discounted at a discount rate of 6% to arrive at the fair value of the investment properties.

Sensitivity analysis

A significant increase or decrease in the unobservable inputs used in the valuation would result in a correspondingly higher or lower fair value of the investment property.

4.2 Impairment loss of investment properties

During the year, the Commission reviewed the investment properties for indication of impairment and as a result, the Commission recognised an impairment loss of RM5.42 million in the statement of income and expenditure for one property. The other property was not impaired as its fair value remains higher than its net carrying value.

5. Intangible assets – software

	Note	2020 RM'000	2019 RM'000
Cost			
At 1 January		21,595	19,427
Addition		852	159
Reclassified from property, plant and equipment	3	219	2,009
At 31 December		22,666	21,595
Accumulated amortisation			
At 1 January		16,233	9,386
Charge for the year		4,128	6,847
At 31 December		20,361	16,233
Net carrying amount			
At 31 December		2,305	5,362

6. Other investments

	2020 RM'000	2019 RM'000
Deposits placed with licensed banks	3,441,713	4,216,826

The weighted average effective interest rate and the average maturity of the deposits as at 31 December are as follows:

	Weighted average effective interest rate		Average maturity	
	2020 %	2019 %	2020 %	2019 %
Deposits placed with licensed banks	2.36	3.82	339	337

7. Fees and other receivables

	2020 RM'000	2019 RM'000
Fees receivables		
Fees receivables	37,972	16,485
Less: Provision for ECL	(17,118)	(6,630)
Fees receivables, net	20,854	9,855
Other receivables		
Interest receivable	36	51
Deposits	1,740	2,056
Staff loans	502	706
Advances to staff	60	3
Others	2,857	1,574
	5,195	4,390
Less: Provision for ECL	(180)	(180)
	5,015	4,210
Fees and other receivables	25,869	14,065
Add: Cash and cash equivalents (Note 8)	164,078	160,231
Total financial assets at amortised cost	189,947	174,296

7. Fees and other receivables (contd.)

Provision for expected credit loss

	2020 RM'000	2019 RM'000
At 1 January	6,630	7,060
Net additions/(reversals) during the year	10,488	(430)
At 31 December	17,118	6,630

An impairment analysis is performed at each reporting date using a provision matrix to measure expected credit loss ("ECL"). The provision rates are based on days past due for groupings of various licensees segments with similar loss patterns. The calculation reflects the probability-weighted outcome, the time value of money and reasonable and supportable information that is available at the reporting date about past events, current conditions and forecasts of future economic conditions. Generally, fees receivables are written-off if past due for more than one year and are not subject to enforcement activity.

Set out below is the information of the credit risk exposure on the Commission's fees receivables using a provision matrix:

31 December 2020

	Average ECL rate %	Gross carrying amount RM'000	Provision for ECL RM'000
1 to 30 days	3%	19,074	561
31 to 60 days	8%	354	30
61 to 90 days	19%	221	41
91 to 120 days	34%	10,875	3,727
121 to 365 days	43%	1,613	699
More than 365 days	100%	5,835	5,835
		37,972	10,893
Adjustment arising from forward-looking factors			6,225
			17,118

7. Fees and other receivables (contd.)

Provision for expected credit loss (contd.)

31 December 2019

	Average ECL rate %	Gross carrying amount RM'000	Provision for ECL RM'000
1 to 30 days	10%	8,824	919
31 to 60 days	16%	978	159
61 to 90 days	33%	500	167
91 to 120 days	40%	250	101
121 to 365 days	60%	1,625	976
More than 365 days	100%	4,308	4,308
		16,485	6,630
Adjustment arising from forward-looking factors			-
			6,630

8. Cash and cash equivalents

	2020 RM'000	2019 RM'000
Cash and bank balances	72,401	139,691
Deposits placed with licensed banks	91,677	20,540
Cash and cash equivalents	164,078	160,231

The weighted average effective interest rate and the average maturity of the deposits as at 31 December are as follows:

	Weighted average effective interest rate		Average maturity	
	2020 %	2019 %	2020 days	2019 days
Deposits placed with licensed banks	1.68	2.90	18	2

9. Accumulated funds

Note	2020 RM'000	2019 RM'000
Accumulated surplus brought forward	2,762,249	1,810,919
Initial fund	60,000	60,000
Accumulated payments made to the Consolidated Fund pursuant to Section 38(3) of the Malaysian Communications and Multimedia Act 1998 (Act 589)	(1,568,000)	(1,250,000)
Surplus after tax	250,529	951,330
	1,504,778	1,572,249

The initial fund has been utilised in the previous years to finance the working capital of the Commission.

10. Contract liabilities

	2020 RM'000	2019 RM'000 Restated
Current		
Spectrum fees		
3G spectrum assignment fees	29,600	29,600
Apparatus assignment fees	342,683	144,603
SA 900 fees	100,887	100,887
SA 1800 fees	112,872	112,872
Operating licence fees		
Class licence fees	646	544
Numbering assignment fees		
Numbering assignment fees	12,634	17,718
Courier licence fees		
Courier license fees	1,076	908
	600,398	407,132

10. Contract liabilities (contd.)

	2020 RM'000	2019 RM'000 Restated
Non-current		
Courier license fees		
Courier license fees	60	60
Spectrum fees		
3G spectrum assignment fees	362,600	392,200
Apparatus assignment fees SA 900 fees	826	735
SA 1800 fees	777,793	850,529
Fi SA 1800	817,116	893,184
	1,958,395	2,136,708
Total contract liabilities	2,558,793	2,543,840

Contract liabilities relates to the amount of unearned income from payments ranging from 1 to 14 years (2019: 1 to 15 years) made by licensees that will be recognised in future financial periods.

11. Other payables

	2020 RM'000	2019 RM'000 Restated
Sundry payables	28,105	15,623
Accrued expenses	134,642	211,169
GST Rebates	283	669,429
Total other payables	163,030	896,221
Add: lease liabilities	9,731	10,154
Total financial liabilities at amortised cost	172,761	906,375

12. Leases

(a) Commission as a lessee

Set out below are the carrying amounts of right-of-use assets recognised and the movements during the period:

	Copiers RM'000	Office rental RM'000	NASMOC equipment RM'000	Total RM'000
At 1 January 2019	1,332	5,603	4,737	11,672
Additions during the financial year	71	1,018	-	1,089
Amortisation expense	(259)	(1,505)	(985)	(2,749)
At 1 January 2020	1,144	5,116	3,752	10,012
Additions during the financial year	211	1,932	634	2,777
Disposal during the financial year	-	(28)	(283)	(311)
Amortisation expense	(327)	(1,793)	(969)	(3,089)
At 31 December 2020	1,028	5,227	3,134	9,389

Set out below are the carrying amounts of lease liabilities recognised and the movements during the period:

	2020 RM'000	2019 RM'000 Dinyatakan semula
At 1 January	10,154	11,672
Additions during the financial year	2,777	1,089
Accretion of interest	384	384
Disposal	(322)	-
Payments	(3,262)	(2,991)
At 31 December	9,731	10,154
Current lease liabilities	2,717	2,461
Non-current lease liabilities	7,014	7,693
Total lease liabilities	9,731	10,154

12. Leases (contd.)

(b) Commission as a lessor

The Commission have entered into operating leases on its investment properties. These non-cancellable leases remaining lease terms of 5 months to 33 months (2019: 3 months to 29 months).

Future minimum rentals payable under non-cancellable operating leases at the reporting date are as follows:

	2020 RM'000	2019 RM'000
Not later than 1 year	14,063	14,456
Later than 1 year but not later than 5 years	18,515	4,528
	32,578	18,984

13. Income

Disaggregated income information

Types of services

	2020 RM'000	2019 RM'000
Operating licence fees	120,168	125,690
Spectrum fees	1,018,764	960,849
Numbering assignment fees	18,190	18,360
	1,157,122	1,104,899

Timing of revenue recognition

The Commission recognises income over time, with the exception of income from application fees, which is recognised at a point in time.

	2020 RM'000	2019 RM'000
Services transferred over time	1,143,237	1,095,993
Services transferred at a point in time	13,885	8,906
	1,157,122	1,104,899

Details of balances arising from the various income recognised versus their collections by the Commission are as follows:

13. Income (contd.)

Contract balances

(a) Fees receivables

Information relating to trade receivables balances arising from contracts with customers is disclosed in Note 7.

(b) Contract liabilities

The current portion contract liabilities balance as at 1 January 2020 of RM403.94 million was fully recognised as revenue during the year.

(c) Contract assets

Contract assets primarily relate to rights to consideration for operating licensees that should be recognised over the license period but have yet to be billed at the reporting date as invoice is only issued on the anniversary date. Contract assets are transferred to receivables when the rights become unconditional. As at 31 December 2020, the Commission has contract assets of RM11.36 million (2019: RM11.18 million).

14. Other income

	2020 RM'000	2019 RM'000
Sundry income	438	1,352

15. Employee benefit expenses

	2020 RM'000	2019 RM'000
Wages, salaries and allowances	86,253	79,536
Social security costs and employee insurance	5,901	5,557
Bonus	5,594	18,117
Defined contributions plan	14,702	16,068
Other staff related expenses	6,302	7,049
	118,752	126,327

Included in the employee benefit expenses are the allowances, expenses and ex-gratia of the Commission Members amounting to RM702,733 (2019: RM915,838).

16. Tax expense

	2020 RM'000	2019 RM'000
Current tax expense		
Current year	30,957	37,465
(Over)/under provision in prior years	(1,149)	55
Total income tax expense	29,808	37,520

The Commission has been granted tax exemption from Year of Assessment 2000 onwards by the Ministry of Finance under Section 127(3)(b) of the Income Tax Act, 1967. The current tax expense is in respect of interest and rental income not exempted from tax.

A reconciliation of income tax expense applicable to surplus before tax at the statutory income tax rate to income tax expense at the effective income tax rate of the Commission is as follows:

	2020 RM'000	2019 RM'000
Surplus before tax	280,337	988,850
Income tax calculated using Malaysian tax rate of 24% (2019: 24%)	67,281	237,324
Expenses not deductible for tax purposes	241,809	66,233
Income not subject to tax	(278,133)	(266,092)
(Over)/under provision of income tax expense in prior years	(1,149)	55
Total income tax expense	29,808	37,520

17. Audit fees

The Commission's audit fee of RM150,000 (2019: RM150,000) is recognised in the statement of income and expenditure and recognised gains and losses. The Commission also bears the audit fees of the Universal Service Provision Fund amounting to RM80,000 (2018: RM80,000), which is recognised in the said statement.

18. Goods and Services Tax Rebates (“GST Rebates”) expenses

This relates to the GST Rebates payable to eligible licensees in respect of the provision of prepaid cellular services to the Malaysian citizens which was announced in the Budget 2016 by the then Finance Minister. There was also an announcement made by the latter in 2017 that Malaysian prepaid cellular users will continue to enjoy GST Rebates. The Commission was then directed to pay the GST Rebates claims made by the eligible licensees. Upon clarification and approval of the Commission, the GST Rebates payable will be borne by the Commission in implementing the policy announced in the Budget 2016. In prior years, a provision was made for such rebates totaling RM670.00 million. In the current year, upon completion of verification by the Commission, RM664.40 million was paid to the eligible licensees which resulted in an overprovision of RM5.32 million being recognised during the year.

19. Projects expenses

The projects expenses of the Commission during the year are shown below:

	2020 RM'000	2019 RM'000
Communication services	38,187	-
Refund of unutilised funds for the supply of tablets to teachers and students from 2016 to 2018	(41,531)	-
Corporate social responsibility programs by the Commission	-	169
Reversal of contribution to the Jalur Lebar infrastructure in Terengganu	-	(1,000)
Smart community programs	-	(700)
	(3,344)	(1,531)

20. Stimulus grant for the National Digitalisation Broadcasting project

This relates to a stimulus development grant to assist in the implementation of Free-to-Air Digital Terrestrial Television (“OTT”) project in Malaysia. OTT is a government initiative to upgrade the TV and radio broadcasting services provided to the public via the transition from analogue television broadcast to digital television broadcast. The grant was paid and recognized during the financial year.

21. Capital commitment

	2020 RM'000	2019 RM'000
Property, plant and equipment Authorised but not contracted for	153,558	115,568

22. Financial risk management objectives and policies

The Commission is exposed to financial risks arising from its operations and the use of financial instruments. The key financial risks include interest rate risk (both fair value and cash flow), liquidity risk and credit risk.

The Commission Members review and agree policies and procedures for the management of these risks, which are executed by the Chairman. The audit committee provides independent oversight to the effectiveness of the risk management process.

(a) Credit risk

The Commission's credit risk is primarily attributable to fees and other receivables and deposits placed with licensed banks. The maximum credit exposure on trade receivables is limited to the carrying amount of the receivables less provision for expected credit loss.

Details of expected credit loss in relation to fees and other receivables are disclosed in Note 7.

Management has a credit policy in place and the exposure to credit risk is monitored on an ongoing basis. Management has taken reasonable steps to ensure that receivables that are neither past due nor impaired are stated at their realisable values. A significant portion of these receivables are major licensees that have been transacting with the Commission. The Commission uses ageing analysis to monitor the credit quality of the fees receivables. Any receivables having significant balances past due more than 365 days, which are deemed to have higher credit risk, are monitored individually.

The credit risk of the Commission's other financial assets, which comprise of cash and cash equivalents, arises from default of the counterparty, with a maximum exposure equal to the carrying amount of these financial assets

(b) Liquidity risk

Liquidity risk is the risk that the Commission will not be able to meet its financial obligations as they fall due. The Commission's exposure to liquidity risk arises principally from its various payables.

22. Financial risk management objectives and policies (contd.)

(b) Liquidity risk (contd.)

The Commission maintains a level of cash and cash equivalents deemed adequate by the management to ensure, as far as possible, that it will have sufficient liquidity to meet its liabilities when they fall due.

It is not expected that the cash flows included in the maturity analysis could occur significantly earlier, or at significantly different amount.

Maturity analysis

The financial liabilities of the Commission are all due within the next 12 months from the reporting date.

(c) Interest rate risk

The Commission is exposed to interest rate risk on its deposits placed with licensed banks. The Commission does not transact in any interest rate swaps.

Exposure to interest rate risk

The interest rate profile of the Commission's significant interest-bearing financial instruments, based on carrying amounts as at the end of the reporting period was:

	2020 RM'000	2019 RM'000
Fixed rate instruments		
Financial assets		
Deposits with licensed banks		
Fixed deposits	2,815,000	3,297,351

Fair value sensitivity analysis for fixed rate instruments

The Commission does not account for any fixed rate financial assets and liabilities at fair value through statement of income and expenditure, as their carrying values are approximated to fair value. Any change in fair value at the end of the reporting period would not significantly affect the statement of income and expenditure.

(d) Fair value information

The carrying amounts of other investments, cash and cash equivalents, fees and other receivables and other payables reasonably approximate their fair values due to the relatively short term nature of these financial instruments.

Information regarding the investment properties' fair values are disclosed in Note 4.

23. Related parties

Identity of related parties

For the purposes of these financial statements, parties are considered to be related to the Commission if the Commission has the ability, directly or indirectly, to control or jointly control the party or exercise significant influence over the party in making financial and operating decisions, or vice versa, or where the Commission and the party are subject to common control. Related parties may be individuals or other entities.

Related parties also include key management personnel defined as those persons having authority and responsibility for planning, directing and controlling the activities of the Commission either directly or indirectly. The key management personnel includes all the Commission Members, and senior management of the Commission.

The Government of Malaysia ("GOM") including those entities controlled, jointly controlled or under significant influence by the GOM are considered as related parties of the Commission. All the transactions processed by the Commission for the GOM-related entities are conducted in the ordinary course of business.

Related party transactions have been entered into the normal course of business. The related party transactions of the Commission during the year are shown below:

	2020 RM'000	2019 RM'000
Payments made to Consolidated Fund pursuant to Section 38(3) Malaysian Communications and Multimedia Commission Act 1998 (Act 589)	318,000	-
Key management personnel's compensation (Note a)	4,587	4,293

(a) Key management personnel compensation

Compensation paid to key management personnel which forms part of the Commission's employee benefit expenses in Note 15, for the financial years ended 31 December 2020 and 31 December 2019 are as follows:

	2020 RM'000	2019 RM'000
Wages, salaries and allowances	3,312	3,194
Bonus	581	466
Defined contributions plan	694	633
	4,587	4,293

24. Fund management policy

The primary objective of the Commission's fund management is to ensure that it is able to meet its liabilities as and when it falls due and to achieve its operational objectives.

The Commission manages its accumulated funds by budgeting its funding needs ahead and adjust its expenditures as required. The Commission continuously monitors its budget against actual results and identifies efficiencies in its operations.

No changes were made in the objectives, policies or processes during the years ended 31 December 2020 and 2019.

25. Legal proceedings

Nuemera (M) Sdn Bhd

The Commission discovered an incident of the leakage of subscribers' data of telecommunication companies which was made available at Lowyat.net.forum ("Data Breach") on 18 October 2017.

Following the said discovery, the Commission decided to suspend the arrangement in respect of the Public Cellular Blocking Service ("PCBS") solution and issued a letter to Nuemera dated 26 January 2018. In the said letter, the Commission highlighted its concerns in respect of the Data Breach and the Commission's stance to suspend the arrangement in respect of the PCBS solution, including the payment of fees to Nuemera under the PCBS Agreement, pending the completion of the investigation by Polis Diraja Malaysia ("PDRM") and identification of the party responsible for the breach.

Nuemera's solicitors issued a letter of demand ("LOO") dated 19 January 2018 to the Commission demanding the settlement of the outstanding payments of approximately RM57.1 million, under the PCBS Agreement and Term Sheet.

The Commission subsequently via its letter dated 9 February 2018 informed Nuemera that it did not accept Nuemera's position that the Commission is to make payment as demanded in the LOO due to Nuemera's failure to manage the PCBS Solution and the Data Breach, and the Commission is not relying on section 266 of the CMA 1998 (which is regarding the emergency provision) but is instead relying on the contractual provisions between the parties.

Nuemera thereafter filed an application at the High Court on 3 April 2018 for an interim injunction to be given in favour of Nuemera following the Commission's act of suspending the arrangement under the PCBS Agreement and Term Sheet, which was dismissed by the High Court on 3 May 2018 with costs of RM10,000 awarded to the Commission.

Nuemera then filed an appeal via notice date 4 May 2018 at the Court of Appeal against the High Court's decision but was later withdrawn by Nuemera on 17 July 2019 with costs of RM20,000 awarded to the Commission.

25. Legal proceedings (contd.)

Nuemera (M) Sdn Bhd (contd.)

Nuemera had also served the Commission with a Notice of Arbitration dated 27 February 2018 (“NOA”) to resolve the dispute with regards to the outstanding payment. The arbitration was put on hold pending the conclusion of the governance process as required under the PCBS Agreement. As the governance process was not successful to resolve the dispute between the Commission and Nuemera, the NOA was ‘revived’ and the Commission had responded to Nuemera’s NOA by filing its response on 14 August 2018 before the Asian International Arbitration Centre (Kuala Lumpur).

In respect of the arbitration, Nuemera filed an application for Interim Order for Payment before the arbitral tribunal on 1 November 2019 to obtain the outstanding amount of payment under the PCBS Agreement, pending arbitration decision.

On 31 January 2020, the arbitral tribunal dismissed the application and awarded costs in the amount of RM30,000 to the Commission.

Both parties served the Statement of Agreed Facts, Schedule of Presentation of Witnesses and Written Opening Statement to the Asian International Arbitration Centre (KL) (“AIAC”) on 14 February 2020.

During the hearing dates on 24 to 27 February 2020 and 2 to 5 March 2020, Nuemera’s witnesses had been duly examined by both parties. The next hearing dates would mainly be for the Commission’s witnesses to be examined.

The following hearing dates which were initially fixed by the arbitral tribunal on 7 to 9 July 2020 and 14 to 16 July 2020 were postponed due to the Movement Control Order (“MCO”). The hearing was set to continue from 10 to 11 December 2020 and 13 to 18 December 2020. However, the Commission had to seek for an adjournment on 10 December 2020 upon receipt of Nuemera’s letter on 9 December 2020 proposing an amicable settlement.

Upon due consideration by the Commission, the proposal for amicable settlement was not accepted and the arbitration hearings which had been scheduled on 23 and 24 February 2021, 19 to 23 April 2021 and 26 and 27 April 2021 will proceed. However, the hearing dates scheduled on 23 and 24 February 2020 did not proceed as the tribunal was not inclined to continue the hearing due to the closure of the AIAC following the MCO. The hearing will now proceed on 19 to 23 April 2021 and 27 to 28 April 2021.

As of the reporting date, the Commission has accrued for the cost of services received, pending outcome of the NOA.

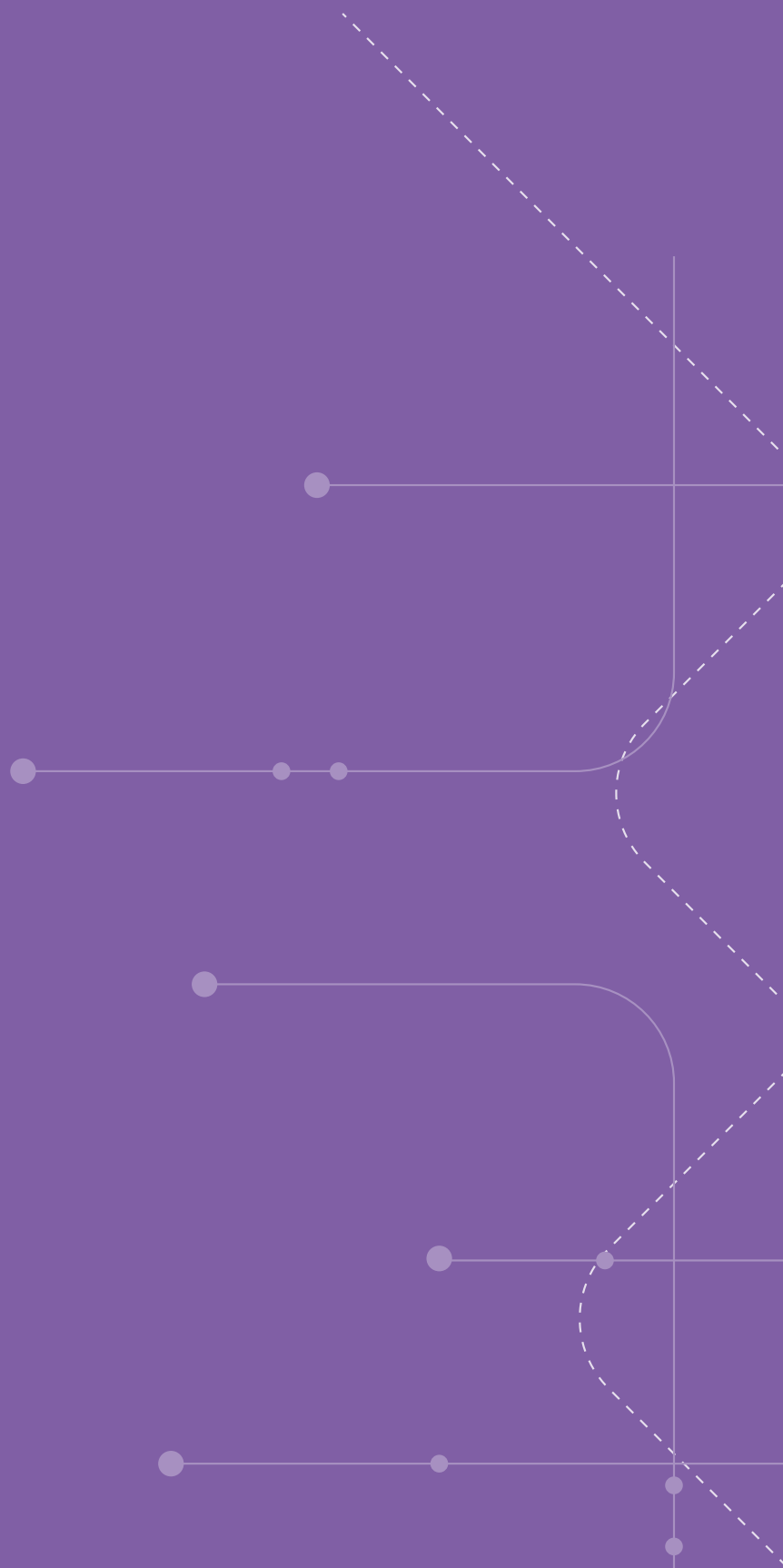
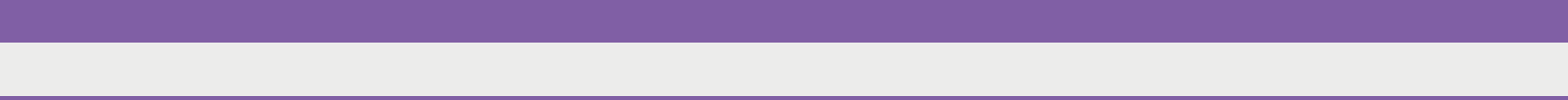
26. Comparatives

During the year, the Commission has made the following reclassifications to conform with current year presentation:

		As previously reported RM'000	Reclassification RM'000	As restated RM'000
Statement of financial position as at 31 December 2019				
Current liabilities				
Contract liabilities	(i)	403,940	3,192	407,132
Other payables	(i)	899,413	(3,192)	896,221
Statement of cash flows for the year ended 31 December 2019				
Cash flows from operating activities				
Changes in working capital:				
Contract liabilities	(i)	(168,574)	3,192	(165,382)
Other payables and accrued expenses	(i)	(5,976)	(3,192)	(9,168)

- (i) Balances and movements relating to unapplied receipts were reclassified from other payables to contract liabilities in the statement of financial position and in the statement of cash flows as they were related to apparatus assignment fees received in advance.

The above reclassifications had no impact to the statement of income and expenditure and recognised gains and losses.





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