

2019 2020

ANNUAL REPORT



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Chairman's Foreword

Yang Mulia

Dato Seri Paduka Awang Haji Matsatejo bin Sokiauw

Deputy Minister of Energy, Ministry of Energy
and Chairman of AITI

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
السَّلَامُ عَلَيْكُمْ وَرَحْمَةُ اللَّهِ وَبَرَكَاتُهُ

Alhamdulillah, I am pleased to present AITI Annual Report 2019/2020. Throughout the past year in review, AITI has made several significant achievements.

Over the course of Financial Year 2019-2020, AITI has been part of significant initiatives taken by the Government of His Majesty the Sultan and Yang Di-Pertuan of Brunei Darussalam in driving the nation's info-communication sector forward. One of the major changes was the restructuring of the telecommunication industry where the network infrastructures of the telecommunication operators were consolidated under a newly formed network operator, Unified National Networks Sdn Bhd (UNN). With the consolidation of these networks - Telekom Brunei Berhad (TelBru), Datastream Technology Sdn Bhd (DST) and Progresif Cellular Sdn Bhd (Progresif), as well as Brunei International Gateway Sdn Bhd (BIG) - the new retail market players can now offer fixed, mobile and broadband services to the public at more competitive prices. This was thoughtfully designed and implemented with the strategic intent to create efficiency in the use of financial and human resources geared to achieve optimal performance and productivity in the telecommunications sector. We hope to see this transformative initiative come to fruition in the coming years by serving the balanced interest of key stakeholder groups such as the government, the industry and the consumers at large. Furthermore, the waiver of the annual Cellular Mobile Subscriber Licence (CMSL) fee of \$25 is a positive move by the

government to make telecommunications services more accessible and improved affordability in an effort to increase public's readiness to adopt technology. AITI has also taken the proactive measure to introduce number portability where customers have the flexibility to choose and switch telecommunication service providers while maintaining their existing mobile numbers.

At this point, I would like to acknowledge that AITI has embarked on the groundworks for AITI Strategic Plan 2020 – 2025 which is a crucial step in setting the right direction in leading the development of ICT by enabling the digital sector to fuel the economic growth. The strategic plan advocates on driving economic growth and innovation through opportunities available in the digital sector; highlights the importance of ubiquitous connectivity, and emphasises on a better future for its people by having an enriched life, empowered by digital technology.

As we are in the era of Industry Revolution 4.0 (IR4.0), we realise that there are challenges ahead of us. We have some key enabling programmes which have begun to take shape in terms of ICT skills development among the unemployed youth, reskilling and upskilling for working professionals as well as future ready digital skills development programmes to leverage IR4.0. We believe that such skills and capacity are essential components to spur and elevate the prospects of our digital sector to stay regionally comparative and ensure effective participation at ASEAN level.

Among many digital industry development initiatives implemented last year, we paid attention to eCommerce development and brought about some success in increasing more eConsumers and online entrepreneurs. This effort allowed us to be able to minimise the impact from COVID-19 pandemic on the local businesses by enabling them to create an online presence and leverage on eCommerce platforms.

As an organisation which prides itself on contributing to the development of the nation, AITI also realises the importance of consistent pursuits of excellence from within. Several organisational excellence initiatives have been carried out which included the setting up of advisory committees at the Members of Authority level to focus specifically on certain aspects of internal human resources, industry manpower, governance and risk management, as well as legal and regulatory. With these advisory committees in place, AITI is more strategised and focused to meet the ever-evolving landscape of the industry while ensuring the organisational needs of an effective corporate governance and proficient workforce.

In closing, I wish to express my sincere gratitude to Yang Berhormat Dato Seri Setia Awang Abdul Mutalib bin Pehin Orang Kaya Seri Setia Dato Paduka Haji Mohammad Yusof, the Minister of Transport and Infocommunications, for his guidance in providing steer for AITI. I would also like to acknowledge all Members of Authority for their wise counsel, diligence and contribution to AITI. I would like to thank all AITI management team and staff for their steadfast dedication, hard work and commitment in seeing through the functions, key projects and initiatives. Lastly, thank you to all stakeholders who have provided valuable support and assistance to AITI towards the advancement of ICT sector in Brunei Darussalam.

Acting Chief Executive's Message

Yang Mulia

Ir. Haji Jailani bin Haji Buntar

Acting Chief Executive of AITI

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
السَّلَامُ عَلَيْكُمْ وَرَحْمَةُ اللَّهِ وَبَرَكَاتُهُ

Looking back in fiscal year 2019, AITI has made excellent progress in rolling out a suite of programmes, projects and initiatives which are aligned with its mandate to foster a strong ICT sector in the country. Technology advancement has brought about the emergence of digital economy where a broad range of economic activities use digitised information and knowledge with the availability of modern networks and ICT to drive economic growth.

One of the significant milestones in the restructuring of the telecommunications industry was the establishment of the Unified National Networks Sdn Bhd (UNN) in September 2019 as the new sole wholesale network operator for ICT infrastructure. The establishment of new retail service providers: Imagine Sdn Bhd, Datastream Digital Sdn Bhd and Progresif Sdn Bhd with equal access to UNN's network infrastructure, provide wider choices of fixed, mobile and broadband services. As such, AITI is adapting well to keep abreast with this momentous shift by ensuring that appropriate regulatory tools and policy instruments are in place to enable sustainability, vibrancy and competitiveness of the ICT market.

Focusing on the connectivity aspect of the nation, AITI has continued to carry out Quality of Service (QoS) exercise to ensure optimal utilisation of resources for infrastructure deployment and acceptable levels of service quality and coverage for internet and mobile connectivity are made available to the public. As more digital devices are imported to serve the local businesses and community, AITI has issued exemptions for approvals and licenses in the importation and operation of telecoms and radio-communications equipment for various levels of the public sector involved in coordinating and providing emergency

care and life-saving services during disaster events. With the rapid growth of new technologies, ICT applications and services, digital skills in all levels of society has increased significantly. AITI has implemented several initiatives on digital capacity development to equip the businesses and society with the relevant skills to cope with the new technologies and stay relevant in the digital economy. The Youth in eCommerce Programme was introduced to empower the youths to become online entrepreneurs as a means to earn a living and become self-employed. AITI has also launched the Digital Skills Training Programme to enable the citizens and small businesses to learn about the use of digital applications and opportunities in online businesses.

In pursuing to further progress content development in the country, AITI is also nurturing young talent to produce local video contents through its inaugural partake in the South East Asia Video Festival for Children (SEAVFC) in Cambodia and hosting of the ASEAN-Republic of Korea Film Leaders Incubation: FLY 2019 in Brunei Darussalam. It is hoped that such initiatives will inspire more youths to create local content and spur innovation and business opportunities in the broadcasting content industry.

At this point, I would like to acknowledge the generous support and guidance the management team and I received from the AITI Chairman and Members of Authority. I am extremely grateful for the dedication and contribution of our employees in achieving our objectives this past year. We look forward to delivering our commitments in achieving a thriving digital industry, enhancing the quality of life for all and progressing towards a connected nation.

Members of Authority



**Yang Mulia
Dato Seri Paduka
Awang Haji
Matsatejo
bin Sokiaw**
Deputy Minister of Energy
Ministry of Energy
Chairman of AITI



**Yang Berhormat
Ar. Siti
Rozaimeriyanthi binti
Dato Seri Laila Jasa
Haji Abdul Rahman**
Member of
the Legislative Council



**Yang Mulia
Dr Hajah May
Fa'ezah binti Haji
Ahmad Ariffin**
Permanent Secretary
(Economy)
Ministry of Finance
and Economy



**Yang Mulia
Ir. Awang Haji
Mohammad Nazri
bin Haji Mohammad
Yusof**
Permanent Secretary
Ministry of Transport and
Infocommunications
(incoming February 2020)



**Yang Mulia
Professor Dr. Dayang
Hajah Zohrah binti
Haji Sulaiman**
Vice Chancellor
Universiti Teknologi Brunei
(incoming February 2020)



**Yang Mulia
Awang Haji Malai
Anwar Hussain bin
Haji Syed Ahmad
Hussain**
BSJV IT Country Manager
Brunei Shell Petroleum
Company
(incoming February 2020)



**Yang Mulia
Dayang Hajah Noor
Sukhairiyani binti
Dato Seri Laila Jasa
Haji Kassim**
Senior Counsel
Attorney General's Chambers
(incoming February 2020)



**Yang Mulia
Pengiran Haji Mohd
Zain bin Pengiran
Haji Abdul Razak**
Chief Executive
AITI
(outgoing January 2020)



**Yang Mulia
Haji Khairul Zaki
bin Haji Mohiddin**
Head of Fin Tech
Autoriti Monetari Brunei
Darussalam
(outgoing January 2020)



**Yang Mulia
Pengiran Dr Iskandar
bin Pengiran Haji Petra**
Senior Assistant Professor
Faculty of Integrated
Technologies,
Universiti Brunei Darussalam
(outgoing January 2020)

Senior Leadership Team



**Pengiran Haji Mohd
Zain bin Pengiran
Haji Abdul Razak**
Chief Executive
(outgoing November 2019)



**Ir. Haji Jailani
bin Haji Buntar**
Acting Chief Executive
(incoming November 2019)



**Julianah binti
Haji Ali Ahmad**
Deputy Chief Executive
Development



Tina Lim-Keasberry
Assistant Chief Executive
Market Regulation



**Norshahrul Nizam
bin Othman**
Assistant Chief Executive
Resource Management



**Mohd Mahmud Hadini
bin Haji Mohd Taufik**
Assistant Chief Executive
Data Protection & Technical
Services



**Hajah Hasnah
binti Haji Azri**
Assistant Chief Executive
Corporate Services

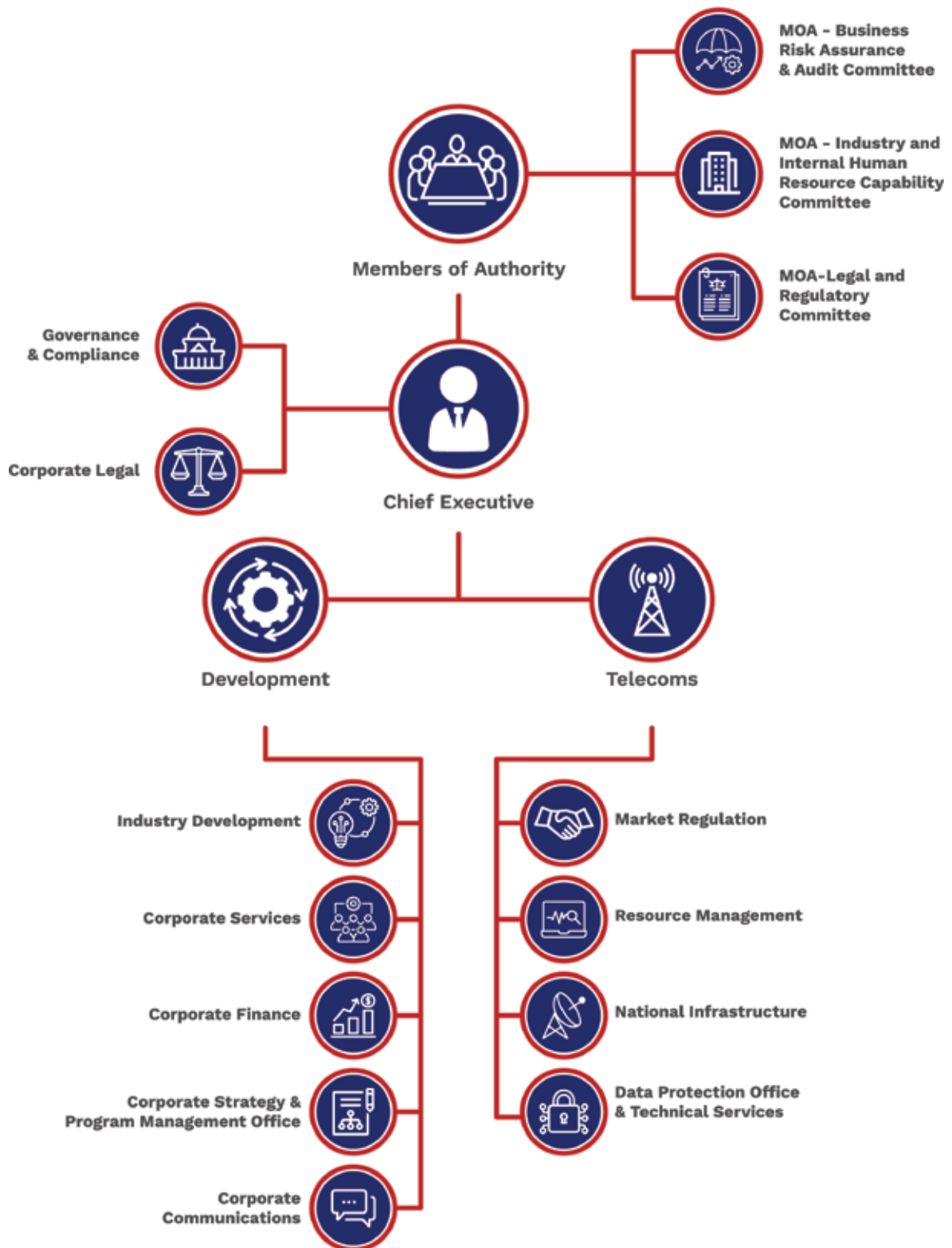


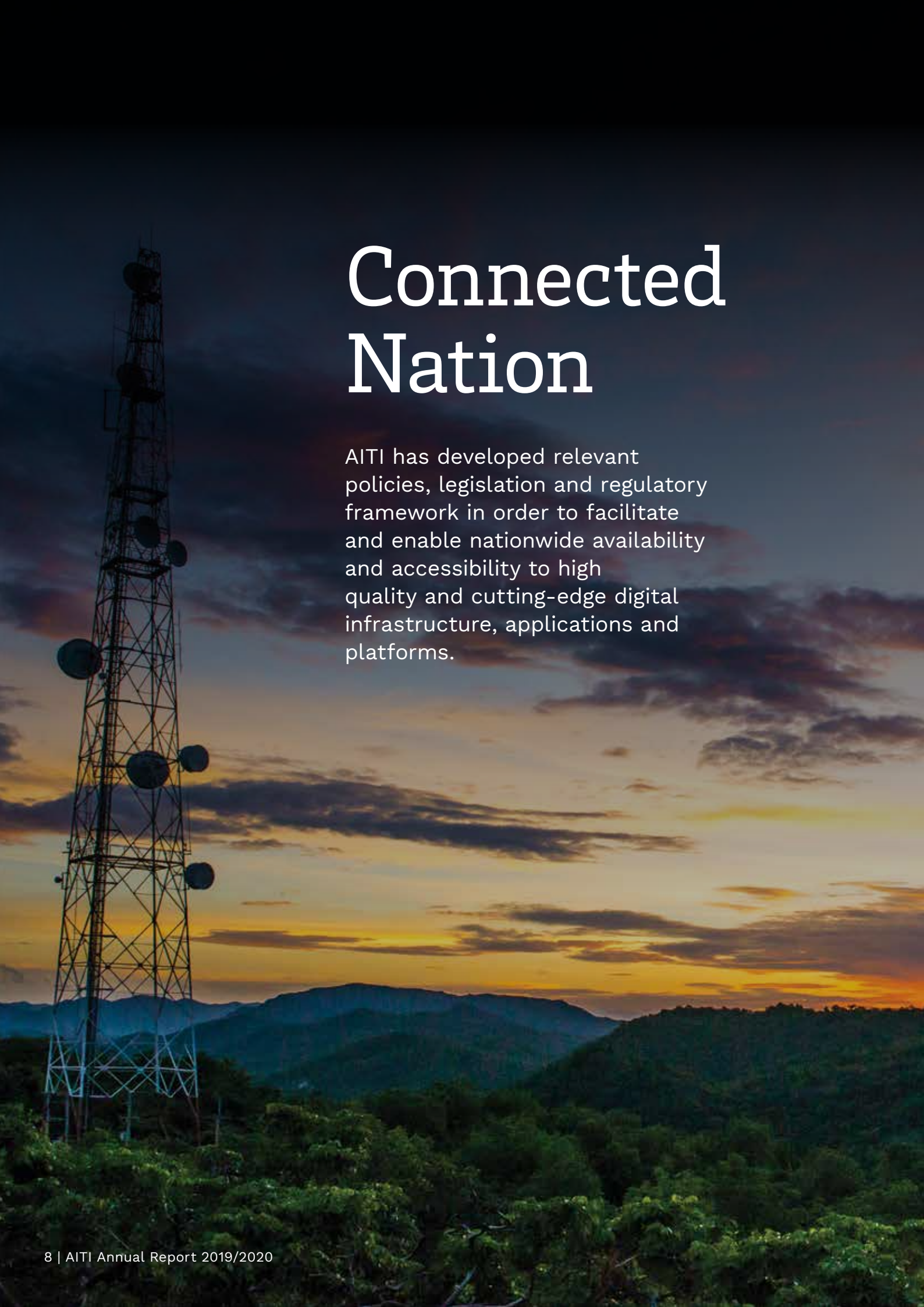
**Haji Emran
bin Haji Hasan**
Assistant Chief Executive
National Infrastructure



**Marinna binti
Haji Mahari**
Chief Financial Officer

Organisational Structure





Connected Nation

AITI has developed relevant policies, legislation and regulatory framework in order to facilitate and enable nationwide availability and accessibility to high quality and cutting-edge digital infrastructure, applications and platforms.

Restructuring of the Telecommunications Industry

As Brunei Darussalam advances towards an integrated and interconnected smart digital future as part of the 4th Industrial Revolution and to achieve our National Vision 2035, it was only a matter of time before a major transformation among the telecommunications players and overall infrastructure took place.

The networks of Brunei's four telecommunications providers: Telekom Brunei Berhad (TelBru), Datastream Technology Sdn Bhd (DST) and Progresif Cellular Sdn Bhd (Progresif), as well as Brunei International Gateway Sdn Bhd (BIG), have all been consolidated under

a single entity, the Unified National Networks Sdn Bhd (UNN). Following extensive research and planning, this official first step commenced on 1 September 2019.

A subsidiary of Darussalam Assets Sdn Bhd, the creation of UNN coincides with a major shift in our national ICT Industry, in which all three telco providers can now offer their retail services while being granted equal access to the national network. With the target of transforming our Sultanate into a more connected and digitally integrated society, this step is a major milestone for progress.

Historic Milestone: Emergence of UNN and Issuance of New Retail Market Players Licenses

Upon UNN's successful acquisition and consolidation of the three telco's infrastructure, they were issued an Infrastructure Provider for Telecommunication Industry (InTi) Licence on 31 August 2019,.

Effective 1 January 2020, new Service Provider for Telecommunication Industry (SeTi) licenses were issued to the new retail aspects of the three telcos, allowing for these entities to move forward with introducing and launching

a wide range of new product packages in tandem with the great restructuring that began on 24 January 2020. A notable and exciting change was the ability for all retail service providers to provide both fixed and mobile services. Seeing as how the previous mode involved only one telco providing fixed services, while the remaining two provided mobile services, this was a great step towards creating a truly fair environment with regard to competition between all market players.



Empowering Consumers with Number Portability

Number portability refers to the user's ability to change to a new telecommunications service provider while retaining their existing mobile and/or fixed line phone numbers.

Commencing on 24 January 2020, this new service helps reduce the barrier that users face in switching from one provider to another. Without it, users are less able to leverage free market competition to their advantage in

securing the best deals offered from the telecommunications service providers. As a result, this feature gives users greater power and flexibility and in turn reward innovative service providers which can deliver a higher quality of service and affordable pricing.

This outcome can be understood as a core element to supporting a fair and competitive market for telecommunications industry.



Making Telecommunications Services Affordable

With the consent of His Majesty the Sultan and Yang Di-Pertuan of Brunei Darussalam, the annual Cellular Mobile Subscriber License (CMSL) fee of \$25 no longer applies effective from 24 January 2020. Announced by the Minister of Transport and Info-communications during a press conference on 20 April 2020, the minister explained this as one

of the industry's efforts to ensure that telecommunications services, which is so vital to modern day life, could be made more affordable for the individual citizens and their communities.

An inevitable bonus of this policy reform will be an increase in national readiness to adopt new technologies and services.

Managing Competition in the New Market Structure

The changes in the market structure with the entrance of UNN as the sole telecommunications network provider called for a reassessment of Market Players with Significant Market Power (SMP) in relevant markets.

The designation of Market Player (MP) with SMP in the identified wholesale markets for TelBru, DST and PCSB were ceased and replaced by UNN.

Following the change in the retail market on 1 January 2020, the designation of MP with SMP in the identified retail markets for TelBru and DSTCom were also ceased. Currently, there are no designations of MP with SMP in the retail market.

The table below shows the changes in the designation of MP with SMP by AITI since 23 March 2016:

MARKETS	MARKET PLAYER(S) WITH SIGNIFICANT MARKET POWER		
	Designations on 23 March 2016	Designations effective from 31 August 2019	Designations effective from 1 January 2020
Market 1 Wholesale SMS Termination on Mobile Networks	DST and Progresif	UNN	UNN
Market 2 Wholesale Voice Termination on Mobile Networks	DST and Progresif	UNN	UNN
Market 3 Wholesale Voice Termination on Fixed Networks	TelBru	UNN	UNN
Market 4 Wholesale Leased Lines	TelBru	UNN	UNN
Market 5 Wholesale Broadband Access	TelBru (Fixed)	UNN (Fixed and Mobile)	UNN (Fixed and Mobile)
Market 6 Retail Domestic Fixed Line Voice Services	TelBru	TelBru	None
Market 7 Retail Fixed Broadband Services	TelBru	TelBru	None
Market 8 Retail Mobile Services	DSTCom	DSTCom	None

Announcement on New Direction on Telecommunications Tariffs

As part of AITI's functions to promote and maintain fair and efficient market conduct and effective competition in the telecommunications market sector, Direction No.1 of 2020: Direction on Telecommunication Tariffs was issued on 12 February 2020.

This Direction, issued to all Licensees engaged in the provision of public telecommunications infrastructure and/or public telecommunications services, revoked Direction No.1 of 2015: Direction to Rationalize Tariff in Brunei Darussalam's Mobile Communications Market that was previously issued to DST Communications Sdn Bhd (DSTCom) and Progresif Cellular Sdn Bhd (PCSB) in 2015.

The regulatory requirements in the Direction No.1 of 2015 still remain relevant in the new market structure, where there is a separation of retail and

wholesale market functions and where the retail market has new retail service providers, which ensure that:

- ▷ End users are not charged for receiving (incoming) voice calls which terminate on fixed and/or mobile telecommunication networks.
- ▷ Interconnection arrangements are made on a Sender Keeps All (SKA) basis i.e. interconnection charges shall not be applied for domestic telecommunications traffic which terminate on fixed and/or mobile telecommunication networks.
- ▷ There is no price difference for voice and/or messaging services terminating on fixed and/or mobile telecommunication networks, regardless of whether the end user is on a prepaid or post-paid plan.

Consumer Protection Guidelines

AITI has also issued the following guiding principles to ensure seamless transition to the new retail market structure:

- ▷ **Guiding Principles to ensure the Continuity of the Provision of Telecommunication Services to the Public** to guide subscriber communication of the transition to the new retail Market Players. This was issued to both previous and current retail Market Players on 10 and 11 December 2019.

- ▷ **Guiding Principles to ensure Transparency for the Provision of Telecommunication Services to the Public** to guide the current retail Market Players on essential information which must be communicated to subscribers with regard to the new product offerings and broadband Fair Usage Policy (FUP). This was issued to the current retail Market Players on 28 January 2020.



Boosting Digital Connectivity Nationwide

AITI was tasked as the focal point to coordinate between Ministry of Development's Brunei Temburong Bridge (BTB) Project team and telecommunication licensees (DST, Progresif & Imagine) to identify telecommunication solutions so as to ensure telecommunication services were readily available once the bridge is open to the general public.

After the establishment of Unified National Network (UNN) in 2019, AITI re-coordinated the project with UNN & the Ministry of Development's BTB stakeholders to ensure the proposed telecommunication works were able to commence and complete as scheduled.

Earlier designs were re-evaluated to emphasise on faster speed & lower cost of execution, ease of future operation & maintenance, safety & its aesthetic outlook. Efficient solutions involving better cables distribution system, reduced quantity and smaller-sized mobile equipment were adopted along the bridge. Deployment of the telecommunication infrastructure was completed in February 2020.

On 17 March 2020, the bridge was officially opened to the general public, equipped with the availability of telecommunication services.



Enabling the Deployment of 5th Generation Mobile Network (5G) for a Smarter Future

Following its first four predecessors:
The 5th generation mobile network is the latest wireless standard being adopted and integrated in nations globally.

Designed to connect virtually everyone and everything together including machines, objects, and devices – 5G wireless technology has a massive network capacity therefore making it vastly more reliable.

Its far higher data speeds combined with ultra-low levels of latency sets the stage for a more consistent and uniform mobile user experience. This new standard expands mobile ecosystems to new industries and will contribute to

cutting-edge user experiences, including Augmented Reality and Virtual Reality (AR & VR), new enterprise applications, edge cloud computing, as well as pushing the boundary for seamless Internet of all Things (IoT) capabilities.

In September 2019, AITI released a public consultation to seek views from stakeholders and members of the public who are interested to contribute to AITI's 5G Plan of Action. The consultation was a follow-up to AITI's study conducted with the International Telecommunication Union (ITU), on readiness assessment of Brunei Darussalam to support the implementation of 5G networks. The results of the study highlighted several policy recommendations for further consideration.



These included a need for transparency on the availability of Radiofrequency Spectrum, changes in the regulatory framework, as well as the importance of collaboration amongst relevant agencies from different sectors, for the rollout of 5G technology nationwide.

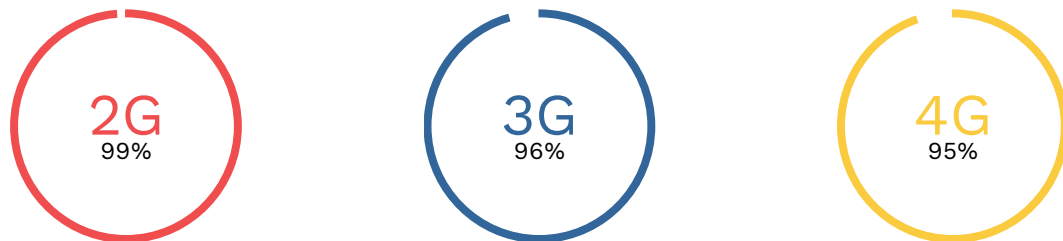
In facilitating deployment of 5G network, AITI has established “5G regulatory sandbox” in March 2020, to give opportunity for companies to trial 5G technologies and its use-cases.

Under this sandbox, AITI is waiving its license, spectrum and importation fees to, to eligible companies conducting 5G proof-of-concept.

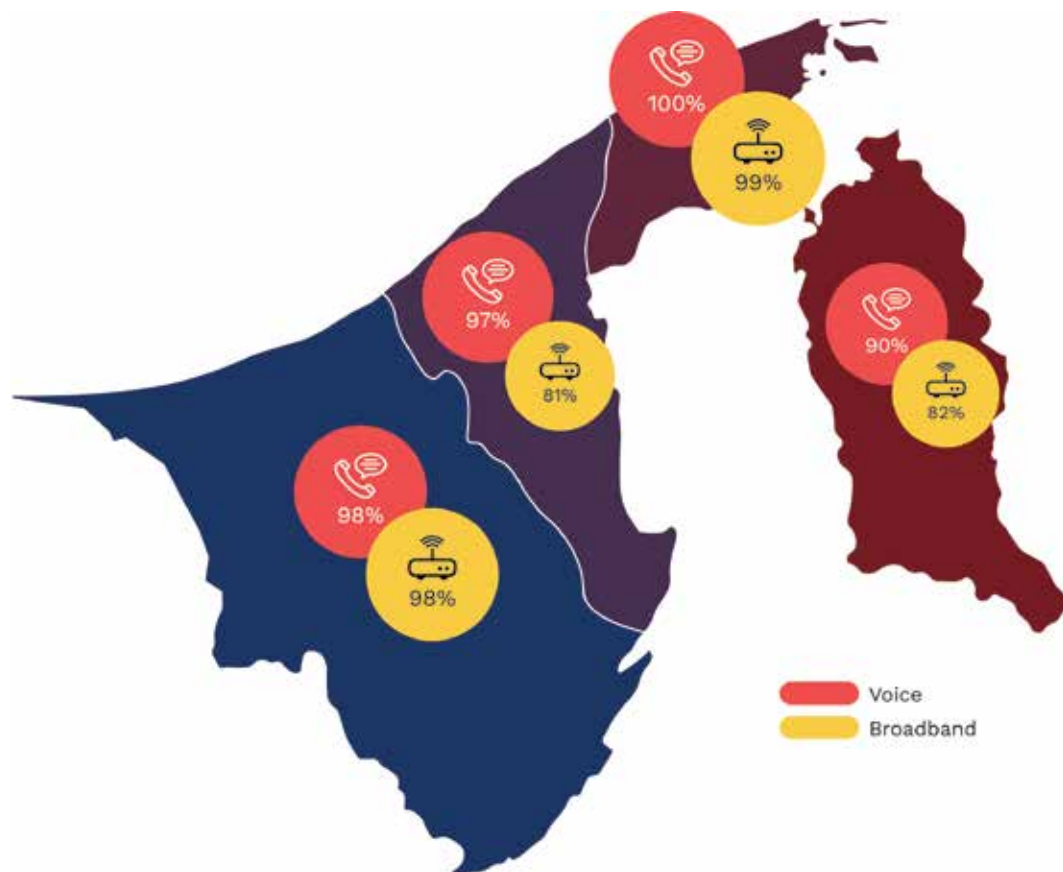
Seizing this opportunity, UNN established multiple 5G proof-of-concept sites beginning in April 2020. Building upon this foundation, AITI will continue to forge partnerships with industry players to explore 5G business use cases and develop the capabilities needed to utilise these technologies. This is how we pave the way forward for a vibrant 5G ecosystem in Brunei Darussalam.

Brunei Darussalam's Telecoms Performance

Our mobile telecommunications service providers offer 2G, 3G and 4G mobile services to more than 95% of Brunei's population.



Overall nationwide voice and mobile broadband services

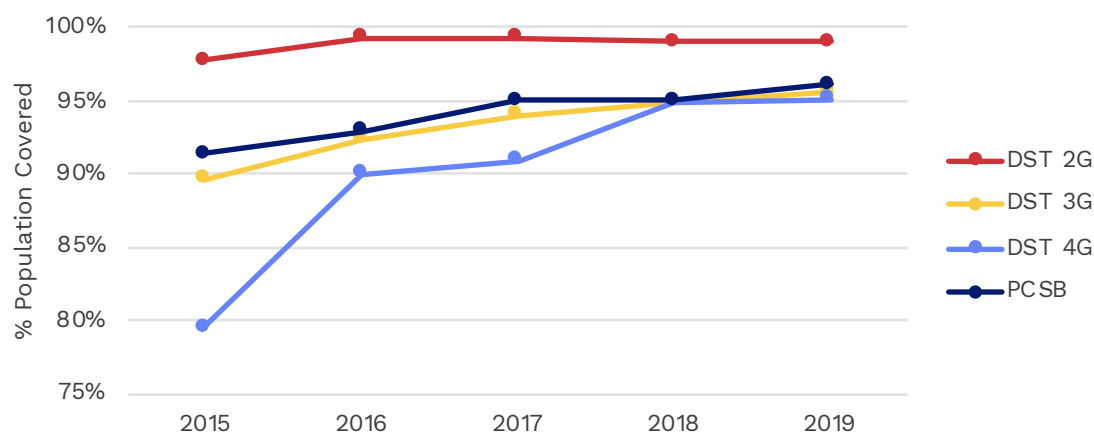


There are still underserved populated areas, particularly in the rural areas. Telecommunications service providers face a number of challenges such as hilly terrains, lack of commercial viability due to limited number of residents and overall scattered

distribution of population in those areas. However, AITI and local telecommunications service providers will continue their collaborative efforts for rural area infrastructure deployment and service coverage.

Below is the coverage trend from coverage drive test conducted from 2015 until 2019. There has been a steep increase in 4G coverage in 2016 due to increase in network roll-out. From AITI's latest drive test, around 95%

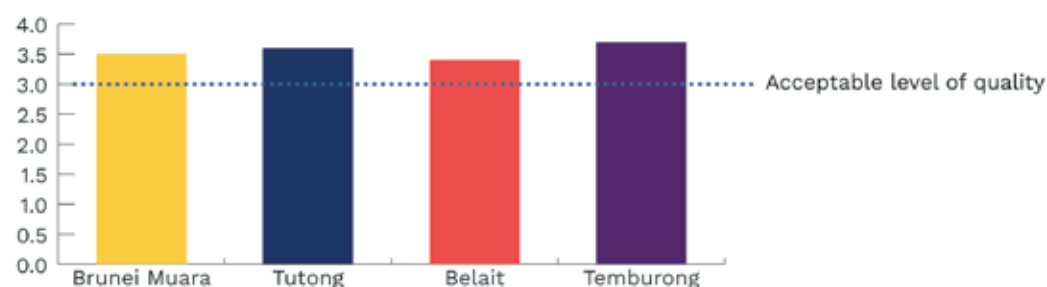
of the population in Brunei received 3G and 4G coverage. UNN is currently exploring utilisation of additional mobile frequencies in the range of 900 MHz, 1800 MHz and 2100 MHz to enhance its network capacity.



Performance of Mobile Voice Services

Using a Mean Opinion Score (MOS) method to measure voice quality within any given network on a scale of 0 to 5, these speech samples are analyzed to ITU Standards. The higher the value the better the quality, with a score of

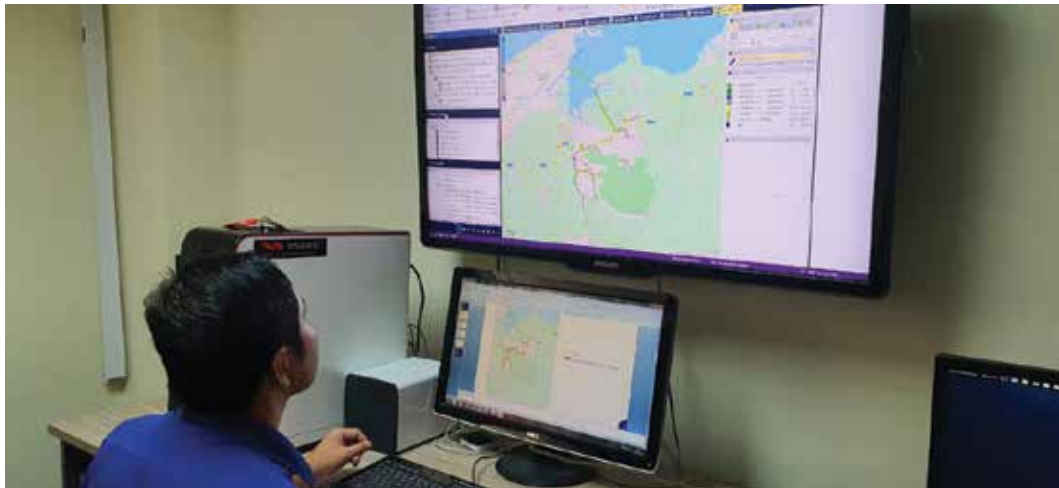
3 indicative of acceptable levels, of which Brunei scores an average of 3.4 to 4. These values were obtained via a Keysight Nemo drive test tool conducted nationwide from October 2019 to January 2020.



Performance of Mobile Broadband Services

Mobile broadband measurements focused on 3G and 4G networks. The overall 3G average speed achieved in 2019-2020 drive test is 3.76 Mbps compared to last year which was 1.8 Mbps. This increase may be due to optimisation of 3G network conducted by UNN and also user concentration was less in 3G due to overall growth of 4G network.

In terms of 4G performance, UNN has introduced Carrier Aggregation (CA) which aims to increase the overall throughput speed and user experience. This year, the overall 4G speed was 12.1 Mbps compared to last year's result which was 7.62 Mbps. AITI has released additional LTE frequencies in the range of 900 MHz.



As part of AITI's efforts to ensure licensees are committed to quality service when providing services to consumers, assessments are done frequently to ensure licensees' performance are in accordance to AITI's standards and meet the subscribers' expectation.



Protecting and Safeguarding the National Spectrum

AITI's Spectrum Monitoring Unit is responsible for monitoring the utilisation of the national spectrum. By using special spectrum monitoring tools, the Unit conducts scheduled occupancy measurements and tests as well as responds to reports by licensees of frequency interferences on their communication systems.

Annually scheduled spectrum tests are conducted to ensure that all transmitters used in the country utilise frequencies that are in accordance to the assignments and to ensure there are no illegal transmission carried out on any unassigned frequency bands.

Once a report is received, an interference investigation will be conducted. The Unit will gather information on the characteristics of the interference and investigate the immediate environment of the interfered system.

With enough information and measurement data, the source of the interference can be identified and will be processed to eliminate its interfering transmission.



Amateur Radio: An Essential Tool for Survival

Amateur Radio Service is a radiocommunication service used as a hobby that brings people and communication together.

Individuals use radio to reach out across cities, around the world, or even into space, all without the Internet or cell phones.

When all means of communication fails, particularly during national disasters, Amateur Radio can become an alternative form of communication that can serve as emergency service dispatchers and message relayers.

As the authorised statutory body to issue Amateur Radio Apparatus Licence in Brunei Darussalam, AITI provides training and examinations for individuals interested in obtaining the licence.

AITI conducted the Amateur Radio examination on Sunday, 29 September 2019.

The objective of the examination is to ensure that the radio operators will have the necessary qualifications and skills to operate amateur radio equipment without causing any interference to other users or radio services and ensures compliance with and is aware of the rules, regulations and code of conduct that applies to amateur radio users and activities.

The licence issued is only valid within the territory and territorial waters of Brunei Darussalam.



Thriving Digital Industry

Technology-enabled innovations are creating enormous potential in every industry. From encouraging innovation to facilitating businesses, AITI has been working consistently in creating an ecosystem which encourages the development of a thriving digital industry in the country.

Enabling Digital Innovation



The opening of Brunei ICT Awards (BICTA) 2019 was announced by the Ministry of Transport and Infocommunications (MTIC) on 1 May. An annual event jointly organised by the MTIC, AITI and the InfoCom Federation of Brunei (IFB), its objective is to stimulate innovation and creativity in ICT.

There were three categories open to participation by individuals, students, Small and Medium Sized Enterprises (SMEs) and organisations.

BICTA 2019's 'Innovation for Digital Nation' theme shined a spotlight on innovation stemming from the younger generation, as they continue to experience life in a rapidly advancing age of technology.

It is hoped that future socio-economic advances in the field of technological development, as well as innovative products and solutions, will be contributions made by them.

Roadshows were held across the nation from 13 to 22 May 2019 with the aim to introduce BICTA and encourage participation.

Last year also saw the BICTA Plus Bootcamp being incorporated for the second time allowing participants to boost self-capability from mentorship and specialised programmes conducted by expert trainers.

BICTA Plus covered topics inclusive of ideation and validation, business planning, intellectual property, and developing market-ready products.



A total of 42 submissions were received. Winners of each category were announced at the BICTA 2019 Award Ceremony held at The Core, Universiti Brunei Darussalam, on 18 September. Present as the guest of honour to

award the winners was Yang Berhormat Dato Seri Setia Awang Abdul Motalib bin Pehin Orang Kaya Seri Setia Dato Paduka Haji Mohammad Yusof, Minister of Transport and Infocommunications (MTIC).

School Category

Winner	Rubbish on Demand (ROD) by Ma'had Islam Brunei
1st Runner Up	Personal Mobile Medical Assistance (PMMA) by Sekolah Menengah Berakas
2nd Runner Up	Tyran Maton by Chung Hua Middle School (BSB)

Tertiary Category

Winner	Medicine Dispenser by Universiti Brunei Darussalam
1st Runner Up	Stroke Recovery Tool by Universiti Teknologi Brunei
2nd Runner Up	Automated Paddy Watergate & Water Distribution via Alternate Wetting and Drying System by Universiti Teknologi Brunei

Industry Category

Winner	Muappy by Muappy
1st Runner Up	Buycour by Buycour
2nd Runner Up	PingUs by AIW Enterprise

Special Awards

Research & Development Project	Flipidea
Big Data Analytics Technology	Scaneat by Ministry of Defence



The teams from Muappy, Buycour, Ma'had Islam, Universiti Brunei Darussalam, Universiti Teknologi Brunei, Berakas Secondary School and Chung Hua Middle School represented Brunei Darussalam in the Asia-Pacific ICT Alliance (APICTA) Awards 2019, held in Ha Long Bay, Vietnam from 26 to

29 November 2019. Ma'had Islam's 'Rubbish on Demand' and Chung Hua Middle School's 'Tyran Maton' won the APICTA 2019 Merit Awards. Participation in APICTA since 2008 has resulted in Brunei netting two awards and twenty-five merit awards to date.

Past BICTA Winners: Their Progress and Development

The journey of our participants do not end at BICTA. As part of the Post-BICTA Programme, the teams continued to develop their products, while providing continuity and sustainability of their inventions. Based on milestones set in their Product Sustainability Plan (PSP), the participants make use of their BICTA prize money and the guidance of industry professionals towards product commercialisation.

MindPlus Sdn Bhd



“For students to thrive in our digital society, education must take an evolutionary leap. BICTA is a good platform to validate your idea, everyone can actually enter just for experience and get exposure.”

Khairi Metussin

CEO, Mindplus Sdn Bhd

MindPlus Sdn Bhd is a digital, design and software engineering company focusing on empowering businesses. Passionate about creative technology and education, the company has built several digital learning platforms for the local and international markets.

MindPlus Sdn Bhd began participating in BICTA in 2012. The company won first place in the ICT Industry category in BICTA 2018, in addition to winning the Royal Patron Award for ‘Mindtrex’. ‘Mindtrex’ also won the Merit Award in APICTA 2018 in Guangzhou, China.

This e-learning platform helps students via adaptive learning, practice and simulation techniques, resulting in a refined learning experience offering meaningful outcomes.

‘Islamic Mind’, another MindPlus product, is an EdTech solution that provides holistic education targeted for the global Muslim market. The curriculum covers students aged 5 to 12 with Islamic educational content that is endorsed by Islamic associations.



Islamic Mind won first place the ICT Industry category in BICTA 2017. Its successful launch led Mindplus to expand their operations in Indonesia, serving a combined total of more than 90,000 active users of both countries.

Nextacloud Technologies



An established ICT Company specialising in enterprise solutions, mobile application and website development, SAAS development and cyber security, Nextacloud Technologies began as a

start-up that won several competitions including the 'Most Promising Digitalized MSME' in the 2019 ASEAN Business Awards.

Formerly known as Newgate Plus, Nextacloud first joined BICTA in 2015. They continued to participate in 2016, 2017 and 2018. They proceeded to win second place in BICTA with their product 'First Blood' under ICT Industry in 2016 and 2017. 'First Blood' was subsequently renamed 'BloodKad' in 2017.

“BICTA has given us a platform for us to test our concept and also test our pitching skills and how we can convince people of our product.”

Hakim Yakob

Co-founder, Nextacloud Technologies Sdn Bhd



Track & Roll



Track & ROLL provides Human Resource Management System (HRMS) solutions to overcome administrative challenges faced by SMEs.

The company won second place in the start-up category of BICTA 2017, after pitching their digital platform that features attendance tracking and monitoring solutions, an e-leave & e-claims option, live payroll and generating manpower reports.

Their portfolio includes providing solutions to NiAT Sdn Bhd, Simvolous Consultancy, EPIC International, KMST Sdn Bhd, Oil & Gas Discovery Centre and Kasakita Interiors Sdn Bhd.

“BICTA provided a very comprehensive and interesting journey to bringing a product from ideation to commercialisation.”

Simon Soo

Founder, Track & Roll



Social Buzz Advertising

Social Buzz Advertising was established in 2011 as an advertising agency that combines traditional and modern approaches by utilising online and social media platforms.

Joining BICTA 2011, the team founded Social Deal Brunei, a group-buying website that helps Bruneians discover things to do, see and taste, which earned them Merit Winner accolade in



the ICT Industry category. It has since evolved into an eCommerce platform with over 20,000 users.



“BICTA helped us validate the idea and go to market faster with all the mentorship and resources that came with being a finalist. Being able to secure key partnerships with merchants and strategic government authorities to establish ourselves.”

Hiro Tien Kai Ping

Founder, SocialBuzz Advertising Sdn Bhd

Techbru Solutions

Techbru Solutions joined BICTA in 2017 with their product ‘Naindah.com’, an online eCommerce platform, and won first place under the ICT Category, earning them a nomination for APICTA 2017.

The same team behind Naindah.com also developed KadaiRuncit.com in 2017. The website, an online grocery store, allows its clientele the convenience of shopping from a wide selection of goods and home necessities, and having their



purchases delivered straight to their doorstep. KadaiRuncit.com also has a charitable option that enables the community to buy pre-arranged bundles for underprivileged families.



“BICTA helped us in terms of assessing what we need and how we can progress to validate our business.”

Aizuddin Fakhri

Founder, Techbru Solutions

Safeguarding Inventions with Patent Protection



Patents are area of utmost importance to safeguard one's invention. There are many examples around the world of how an individual lost the right to their own invention due to another person patenting it first in order to market it.

Conducting a patent search as early as possible is highly encouraged as it gives the inventor a temporary monopoly and therefore the time needed to launch their product.

In order to address the importance of patent protection, AITI in collaboration with the Brunei Intellectual Property Office (BrulPO) hosted a 'Patent Protection: Securing the Rights to your Innovation' seminar on 20 February.

A speaker from UBD discussed the criteria for establishing patents and ways to find out whether an invention is new and non-obvious while representatives from the Attorney General's Chamber and BrulPO hosted a talk on Brunei's Patent System.

Grand IP Technologies shared their views on commercialising a patented product, as well as their own experience in gaining a Made-in-Brunei granted patent for Coloured Solar Panel Coating Technology, while CCW Partnership presented the final talk on the issue of Patent Enforcement/Infringement and Post-Filing Activities, of which, they reported were currently no cases in Brunei.

Attended by 50 people, the seminar received positive feedbacks and a potential patent was identified for the 'Game Project' by Silent Resolve Game Studio.

Promoting Online Shopping on Local Platforms



From 31 January to 2 February, AITI launched the second Brunei CyberShop Fair at the One City Shopping Centre that was officiated by Yang Mulia Dato Seri Paduka Haji Matsatejo bin Sokiaw, Deputy Minister of Energy and Chairman of AITI.

The three-day fair encouraged the public to support local eCommerce platforms.

Local businesses including Kadai Runcit, StorKitani, Naindah, Rotuku, Mumtaz Collections, Beep Digital Solutions, Robo Garden, Weelago, Lakastahshare.com, Qafa Haus, Borro Borro, Buycour, Suhulah and Globex showcased a range of products and services from groceries and furniture to digital payments.

Throughout the event, AITI received support from relevant government and non-government organisations, resulting in a platform that increased the number of vendors' subscribers as well as acting as a staging point for new online vendors to better expand their reach to clientele.

Overall, Brunei Cybershop Fair gave the vendors opportunity to ensure product and service quality, as well as delivery efficiency was on par with customers' needs. A win-win scenario, it is hoped that future Cybershop Fairs will accommodate yet more participation from SMEs, as well as larger organisations at both a national level first, and hopefully one day internationally.

Facilitating Businesses Effectively

With Advisory Guidelines approved upon by AITI Members of Authority, the process for seeking and gaining licenses for importing specialised equipment is streamlined. From various types of licences and permit to fee exemptions and their purposes, this is how AITI facilitate businesses efficiently.



Advisory Guideline on Equipment Fee Exemptions

Members of Authority on 24 September 2019 approved the exemption of fees payable for the approvals and licences needed to import and operate telecommunications and radio-communications equipment in accordance with defined special purposes.

The fee exemptions include:

- ▷ Personal Type Approval
- ▷ Private Import Permit
- ▷ Apparatus Licence
- ▷ Frequency Usage
- ▷ Frequency Application

The defined special purposes that fall within the exemptions category are:

- ▷ Diplomatic visits by Heads of Government or its representatives
- ▷ Royal Brunei Armed Force (RBAF), and Royal Brunei Police Forces (RBPF)
- ▷ Foreign Armed Forces or Police Forces based in Brunei Darussalam
- ▷ Visiting forces conducting joint exercises with the RBAF and RBPF
- ▷ Disaster Management and Emergency Response teams
- ▷ Life-Saving Services such as ambulances and fire brigades

Advisory Guidelines on Equipment Importation and Type Approval

Members of Authority on 13 December 2019 approved a guideline on importing telecommunications and radio-communications equipment.

Whether it is for personal or commercial reasons, the Type Approval must be obtained before the Import Permit. This ensures that the equipment is suitable for use in Brunei Darussalam. AITI is the body responsible for issuing the first stage approval. This is to ensure that the equipment:

- ▷ meets internationally recognized technical and safety standards
- ▷ will not cause frequency interference
- ▷ will not cause harm to national telecommunication systems and infrastructure

There are four categories of Import Permits that can be applied for:

- ▷ Dealer Import Permit
- ▷ Private Import Permit
- ▷ Demo/Trial Import Permit
- ▷ Implicit Import Permit

All permits have a two-week validity from the issuance date and can only be used once.

Brunei Darussalam Network Information Centre (BNNIC)

There were 1079 domain names registered with dot bn, with the most common registered domain names used being 'com.bn' and 'gov.bn', while '.bn' increased over the past year from 10 to 17.

By the 2019-2020 Financial Year's end, the Brunei Darussalam Network Information Centre's team were in the final stages of preparation to enable a 'Domain Name System Security Extensions' feature for websites using dot BN addresses.

This suite of Internet engineering specifications grants users accessing dot BN websites added levels of security. The feature will be enabled by June 2020.

Local Content Goes International

Good storytelling creates impactful content that is highly in demand. This is why AITI conceived the Nuansa Darussalam Initiative, in order to build experience and expertise in this increasingly popular creative field.

Brunei has seen an uptick in interest for this pursuit, creating a greater diversification of storytelling and identity within Asia, and the world stage, leading to the hosting of Film Leaders Incubator (FLY) 2019.



Nuansa Darussalam Brings Local Content Abroad

With the aim to guide local television production companies, ‘Nuansa Darussalam’ was introduced. This initiative provided them with knowledge, skills and exposure to the international market.

Supported by Astro Oasis, the first installment of Nuansa Darussalam took place in November 2018, where three production houses were selected following their successful concept pitches to Astro Executives. Three more production houses were chosen in 2019 to create content for the second installment.

The production houses, previously participants of AITI’s broadcasting development workshops, learned about ideation, pitching, production and promotion of television content, facilitated by Astro Oasis experts.

All six programmes are in the pipeline for being marketed internationally. With plans for another installment, it is hoped that more content creators will participate in the initiative to showcase Brunei Darussalam on the international stage through quality productions as well as to take opportunities to collaborate with regional broadcasters.



ASEAN 5 Waktu
by Regal Blue Production
telecasted on 6 April 2019



Pantaran Raudhah
by Al Artison
telecasted on 13 April 2019



Lakastah
by Nurmedia Production
telecasted on 20 April 2019



Mirat As Salam
by Visual Dimension
telecasted on 11 October 2019



Sintak Labuh
by Visionary Project
telecasted on 18 October 2019



Jim Alif Wau Ya
by Origin Artistic
telecasted on 25 October 2019

Film Leader Incubator (FLY) 2019 Harnesses Local Talents' Capabilities



The Film Leaders Incubator (FLY) is an annual venture between all 10 member states of the ASEAN regional bloc, and the Republic of Korea.

The programme focuses primarily on content creation through short films and unearthing young aspiring talents from all nations involved who can contribute to more diverse film productions in Asia.

FLY 2019 was held in Brunei Darussalam and co-organised by AITI, the Busan Film Commission (BFC), Busan Asian Film School, the Asian Film Commission Network, and supported by Radio Televisyen Brunei (RTB). Some 22 talented young filmmakers comprising two representatives from each country took part in a two-week series of workshops and seminars. Led and mentored by film professionals around the region, participants had access to filming facilities while covering topics such as film screening, short film production, and post-production.



A screening at The Empire Cinema was held on 25 November for two short films entitled 'Gelombang' and 'Shoe Stealer' produced by the two groups of FLY trainees.

FLY 2019 applauded the new talents: Cahaya Harliff from Brunei Darussalam was presented a 'Best Performing Award in Acting', while Izaq Yuzaini bin Ismail from Malaysia received the 'Best Cinematographer' award. The Asian Film Academy Scholarship was presented to Pham Quoc Dung (Ostin) of Vietnam.

With this established platform, it is hoped that aspiring Bruneian filmmakers will work toward kick-starting their careers, so that they may flourish within a creative industry that is bursting with talent and the potential to be a major source of economic potential in the future.

Southeast Asia Video Festival for Children (SEAVFC) Showcases Bruneian Youth's Efforts in Video Production



On 29 November 2019, students from the Pg Jaya Negara Pg Hj Abu Bakar, Sultan Hassan, and Bangar Secondary Schools, as well as Universiti Brunei Darussalam (UBD) represented the country at the 3rd SEAVFC in Phnom Penh, Cambodia, after being shortlisted by AITI for producing the best videos out of submissions received from 16 schools.

SEAVFC is a collaboration between all ASEAN member states to promote, celebrate and honour the highest quality in youth and children's television, while fostering an appreciation of the different cultures and family traditions across the region.

A total of 74 entries from across ASEAN were submitted to compete in ten categories.

The short film 'Suara' by UBD was selected as one of the top two finalists in the 'Amateur' category.

More programmes will be introduced to actively encourage a young generation of content makers to strive toward advancement in the production aspects of this industry. Therefore, in addition to continuing annual content creation workshops, AITI also hopes to play host for this festival in the future.



Empowering Businesses & Societies

The digital era of transformation is filled with incredible opportunities if we take the steps to empower the business environment and society. Regardless of whether they are large scale corporations, small and medium sized enterprises, or unique community pursuits that shine a favourable spotlight on everything that is Bruneian, there is a greater need for digital integration now than ever before. AITI will always strive to be at the forefront 4th Industrial Revolution.

Empowering The Youth with eCommerce



When AITI conducted an eCommerce survey for consumers in 2018, the findings showed that 24% of the respondents were non-eCommerce users. From that group itself, 40% comprised respondents within the 18 to 34 age group. As a result, AITI then organised a 'Youth in eCommerce' programme to target youths within that category who were eager to learn about becoming online entrepreneurs.

Supported by Darussalam Enterprise (DARe) and held from 14 to 15 August 2019, the programme saw participation from youths of different segments in society.

Academics and industry professionals discussed social commerce, eWallet, local tracking applications, cashless payment solutions, online safety, consumer protection, merchant suites and digital marketing.

AITI proactively promotes eCommerce practices as trends show it to be a popular online platform offering ample business opportunities. As a new-age avenue for generating additional income, AITI always encourages the youth to leverage on such opportunities.

Creating Awareness on IPv6 Deployment



A three-day IPv6 Deployment workshop, held from 1 October to 3 October 2019, saw participation from government sector and industry representatives.

The workshop provided awareness on IPv6 as the solution for IPv4 address shortage, allowing further expansion of the Internet.

A trainer from the Asia Pacific Network Information Centre (APNIC) was engaged to facilitate both lesson and lab sessions, where the history and necessity of IPv6 were discussed in detail, in addition to address planning, topology and deployment plans.

Possible uses of IPv6 with IoT and 5G technologies were also explored.

Enhancing Business Opportunities with Emerging Technology



An Emerging Technology Opportunities Seminar featuring speakers from Beyond Tomorrow and Mahir Digital was held on 4 December 2019 to promote the adoption of new digital technologies to improve business operations and productivity.

Insights and expertise on the emerging technologies associated with the Industrial Revolution 4.0 were shared, as well as Brunei's stance regarding the adoption of emerging technologies, skills development and digital maturity.

A demonstration entitled 'Future of Smart Home', and a talk on Digital Presence with Google, which covered market research via cloud and social media strategies also took place. The audience learned how impactful emerging technologies can be on their operational efficiency, and how it can enhance innovativeness in their products and services allowing them to upscale their businesses by integrating into a digital economy.

In its effort to encourage businesses to dive into the full potential derived from data, AITI organised a second Emerging Technology Opportunities Seminar in its DigiBiz Talk series on 13 February 2020 with the support from DARE to support the growth of Micro, Small and Medium Enterprises (MSME).

Themed 'The Power of Data Analytics', the second seminar aimed to promote the opportunities of data analytics for businesses in this era of digital transformation.

The first speaker from Dynamik Technologies Sdn Bhd covered how data analytics and data visualisation can greatly help small businesses. The second speaker, CEO and Founder of Halosis from Indonesia, discussed the current landscape of data analytics in the region, how data analytics can help businesses to expand and to reach targeted customers effectively. Interesting case studies were shared on how successful MSMEs in Indonesia optimised data analytics using Artificial Intelligence (AI) tools by Halosis to widen their customer reach.

The seminar was attended by some 80 individuals in what proved to be a better than expected response from interested participants. When enquired, some respondents stated they would use data analytics tools and applications for their respective businesses, while the rest would give it more thought before doing the same. Meanwhile, various stakeholders were noted approaching the speakers for possible collaborations. Due to the overwhelming response, AITI hopes to host another similar new emerging technology seminar.

Showcasing Smart Future at TechXpo 2019

When AITI set up a pavilion in TechXpo last year from 29 August to 1 September 2019, the immediate vicinity featured a digital smart life in the future. Various technological applications such as the Internet of Things (IoT), sensors, Augmented Reality (AR), digital payment and drones, were exhibited by five vendors, who have expressed a desire to join future expositions in tandem with AITI.



“Hello Alexa!” This voice-controlled smart home controller offered by **Smart Space** is already present in a few private residences across the Sultanate, and for good reason. Alexa can be used to control a wide range of smart-home devices integrated into your property inclusive of the lighting, door locks, sound speakers, and more, against the backdrop of your favourite music.

InnovAero Sdn Bhd offered drone training programmes and certifications for interested individuals and organisations seeking to utilise drones for personal or commercial reasons.



InTurn displayed a mural that combines with Augmented Reality technology, making visitors feel like they were actually within the mural itself, adding more depth and definition to the storytelling experience.

BruPay is a Fintech start-up which introduced their eWallet application, as advocates for a wider acceptance of cashless transactions around the country for those seeking additional options for how purchases are made.



Beep Digital Solutions is another Fintech start-up which focuses on digital payment spaces. Currently, they are able to provide an Alipay payment gateway through ‘Beep Plus+’ for merchants who prior to COVID-19 were looking for ways to cash in on the steady and growing influx of Chinese tourists.



In addition to the pavilion, an AITI collaboration with EduChamp Academic saw free coding classes held for youngsters throughout the exposition. Three classes lasting around 75 minutes were conducted daily. Primary school students specifically were invited to join classes to learn how to use basic

coding tools such as Scratch, Makey Makey and Micro:bit. Many walk-in children displayed a positive curiosity for this activity and were seen enjoying themselves immensely, taking part in quizzes and winning prizes.

Awareness Talks Emphasise Importance of Cybersecurity

An issue that cannot be taken lightly in this day and age: Cybersecurity awareness is more crucial than ever before in light of our ever-increasing reliance on smart devices and online activities. Through collaboration with various organisations, talks were hosted for all segments and ages of society. These awareness activities that highlighted the risks associated with being online, especially with concern to the youth, took place at multiple locations:

Leadership's Camp, Tutong Sixth Form Centre



Upon invitation, AITI on 22 November 2019 facilitated a 'Qa'id Assyumul Camp' programme for the Students' Council and Peer Guiders of the Tutong Sixth Form Centre. These 58 students learned

the importance of online ethics and cybersecurity issues, and armed with this knowledge, were made to be more vigilant regarding online threats and dangers.

Perdana Wazir Secondary School



AITI held a talk for 350 of Perdana Wazir Secondary School's students on 8 January 2020, on social media etiquette. The information conveyed correct and polite ways to communicate and share personal information when using the

many social media platforms readily available to them, being aware of online threats, and how to avoid from partaking in the spreading of inappropriate images and unverified messages.

National Service Programme



AITI officers presented a talk to some 400 National Service Programme (PKBN) recruits on 31 January 2020 at their Training Centre. Besides discussing

online etiquette and safety, trainees from Platoons 1 to 8 were given the opportunity to learn more about AITI's roles and responsibility to the nation.

Internet Governance for Librarians Seminar at Brunei Library Association



On 11 February 2020, an Internet Governance seminar for librarians occurred at the Lambak Kanan Library after AITI was invited to play host by the Brunei Library Association. Officiated by Ir. Awg Haji Jailani bin Haji Buntar, Acting Chief Executive of AITI, accompanied by the association's president, Hjh Nellie bte Dato Paduka Hj Suny, the half-day gathering seminar was facilitated by AITI officers. Topics highlighted included the

Brunei Internet Code of Practices, Brunei Legislations relating to online content issues, online etiquette and safety, and data privacy and protection. The 50 librarians in attendance expressed their gratitude for the chance to learn more about the guidelines in place that help safeguard them against the challenges and risks associated with being online information handlers and providers.

Shaping ICT-Savvy Citizens



One of the initiatives to connect the older generation with the rapidly advancing modern world is the AITI Digital Skills Training Programme for senior citizens. The course was conducted by trainers from the Ministry of Education, IT Protective Security Services Sdn Bhd (ITPSS), and successful eCommerce companies such as Naindah.com, Rotuku.com and Kadairuncit.com.

To date, some 100 senior citizens across the entire nation have taken part in upgrading their skillsets.

The three-day course promoted the use of eCommerce and imbued digital literacy skills among members of this important segment of society.

Encouraging reviews received from participants have led to AITI intending to conduct more similar activities. This level of inclusion has potential to make their lives easier, allowing for greater independence in their daily routine, providing knowledge and accessibility to stay connected with their friends and loved ones.



Participants' Testimonials



This programme is very useful for us senior citizens, as we are taught the basic uses of a computer, email etiquettes as well as learning about eCommerce.

Yang Behormat Awang Haji Emran Bin Haji Sabtu

Senior Citizen Activity Centre, Temburong



This programme is great. It was informative and very beneficial – how to use Microsoft Word for composing letters, basics of eCommerce as well as cybersecurity.

Awang Haji Mohd Ali bin Haji Emran

Senior Citizen Activity Centre, Brunei-Muara



The thing I really like about this programme is how they showed us the things we did not know anything about, and it increased our knowledge in IT.

K. Salim Bin Abdul Karim

Bestari Community Centre, Kuala Belait

International Engagement



25th ATRC Meeting Discusses USO 2.0 Project Status



A national delegation led by Pg Hj Mohd Zain bin Pg Hj Abdul Razak, AITI Chief Executive, attended the 25th ASEAN Telecommunications Regulators Council Meeting (ATRC) in Bangkok from 20-21 August 2019, hosted by the National Broadcasting and Telecommunications Commission of Thailand.

Some of the notable outcomes from the meeting was on the implementation status for ATRC's project on "ASEAN Guidelines on Next Generation Universal Service towards Ubiquitous Broadband Ecosystems (USO 2.0)", dialogue on facilitating sustainable OTT ecosystem in ASEAN and cooperation in the areas of 5G and Smart Cities.

ITU WRC 2019 Reaches Consensus to Identify Globally Harmonised Frequency Bands for 5G



The review and revision of an international treaty referred to as the International Telecommunications Union (ITU) Radio Regulation on the use of global radio-frequency spectrum and satellite orbits for took place between 28 October to 22 November 2019, at the ITU World Radiocommunication Conference (WRC) 2019. Some 3,400 participants from 165 ITU Member States attended the conference hosted in Sharm el- Sheikh, Egypt.

AITI attended the conference in our capacity as the coordinator for national radio-frequency spectrum. During the proceedings, a consensus was reached on identifying globally harmonised frequency bands for 5G mobile services, the protection of radio-frequencies from harmful interference, and setting over twenty items on the agenda for the next Conference, to be held in 2023.

Vientiane Declaration on 'Smart Connectivity for ASEAN Digital Transformation' at 19th ASEAN TELMIN



The 19th ASEAN TELMIN meeting was held in Vientiane, Lao PDR from 24 - 25 October 2019. The Brunei Darussalam delegation was led by His Honourable Dato Seri Setia Awang Abdul Motalib bin Pehin Orang Kaya Seri Setia Dato Paduka Haji Mohammad Yusof, Minister of Transport and Infocommunications. The key outcome of the meeting was the Vientiane Declaration on 'Smart Connectivity for ASEAN Digital Transformation' which was adopted to advance ASEAN's desire to strengthen digital connectivity and accessibility, to pave the way for a thriving digital economy and society in the region. In line with the role of ICT as an enabler of digital transformation to other

sectors, the ministers agreed to rename TELMIN to ASEAN Digital Ministers' Meeting (ADGMIN). They also adopted the framework for the development of the ASEAN Digital Masterplan 2025 that will supersede the current ASEAN ICT Masterplan (AIM) 2020 by the end of next year. TELMIN also held meetings with dialogue partners namely China, Japan and Korea. Under the cooperation with China, the ministers welcomed the 2020 China-ASEAN Year of Cooperation on Digital Economy and endorsed the China-ASEAN ICT Work Plan for 2020. The ministers also welcomed the endorsement of the 2020 ASEAN-Korea ICT Work Plan and the 2020 ASEAN-Japan ICT Work Plan.

Review of 5G Development at 20th FACSMAB Meeting



The 20th Frequency Assignment Committee for Singapore, Malaysia and Brunei (FACSMAB) Review meeting, was hosted by AITI on 3 May 2019 and chaired by Pg Hj Mohd Zain bin Pg Hj Abdul Razak, AITI Chief Executive. The meeting was attended by head of Regulatory Authorities from Malaysia and Singapore.

Following the meeting, FACSMAB agreed to study "LTE in 5GHz Unlicensed Band", "5G Technology and Developments", as well as "Harmonisation of 24.25GHz to 43.5GHz Frequency Bands for 5G" and to be presented at next annual meeting.

Organisational Excellence

AITI aspires to become a High Performing Organisation (HPO). To achieve this goal, AITI embarks on a journey to focus on organisational excellence by continuously improving the people, processes and technology to enhance the quality and productivity of the organisation.

Strengthening Internal Governance

Strengthening Governance & Compliance

AITI is now progressing well in terms of governance, risk and compliance (GRC) initiatives across the organisation, where the risk and governance framework and ecosystem is getting clearer.

In this regard, AITI has formed three committees under the purview of the Members of Authority:

- ▷ **Business Risk Assurance and Audit Committee** to provide guidance and oversee the values and ethics programs including governance structure, risk management, the integrity of financial statements, compliance with laws and regulations and audit process.
- ▷ **Industry and Internal Human Resource Capability Committee** to oversee strategic and high-level management practices, and expanded to industry activities.

- ▷ **Legal and Regulatory Committee** to review the adequacy of current and future laws, as well as to review regulatory compliance and gaps.

AITI's Corporate Legal Unit has also been tasked with risk management to mitigate any potential crisis.

This development has enabled Governance & Compliance Unit (GCU) to conduct their duties in a more effective manner.

GCU will ensure every group will develop their own governance frameworks and policies to capture the key areas of governance principles in the capability building level. The status of implementation within the group and business units will be continuously monitored by GCU.

Financial Governance

Deloitte and Touche was appointed as AITI external auditor for FYE 31 March 2015, 31 March 2016, 31 March 2017, 31 March 2018 and 31 March 2019. The

closing of audit for FYE 31 March 2019 was completed in December 2019. AITI has adopted IFRS as its accounting standards effective FYE 31 March 2019.

Corporate Highlights

Process Review

- Human Resource Unit conducted a review on **AITI's Terms and Conditions of Employment**.
- To close the current manpower challenges and to ensure that all employees are fully optimised within each group, a **Job Capacity Assessment (JCA)** was carried out. This JCA is a manpower planning exercise to determine the actual manpower required both in terms of quantity and quality. The exercise kicked off in September 2019 as part of the manpower management and job audit process.
- A review of the **Standard of Conduct (SOC)** was carried out as part of the procedure to handle consequences management. It is a method used to handle employees' conduct such as discipline, attendance and breach of confidentiality which are linked to SOC. The objective of the review was to strengthen the internal policy and procedures of SOC.

Employee Engagement



In October 2019, a workshop entitled 'Instilling Core Values' was carried out to share, define and have a deeper understanding on the values amongst employees through several activities.

In-house workshops on Nurturing Harmonious Relations were conducted to AITI employees from July 2019 until February 2020. The workshops provided a deeper understanding on the concept of harmonious working environment and how to manage emotional intelligence (EQ) of the employees, establish effective relationships at the

workplace and gain competence in conflict management. The training was facilitated by EMPOWERIOR Counseling and Consultancy.

Two talks took place to update the employees on the following topics:

- Group Term Life (GTL) and Group Hospitalisation and Surgery (GHS) coverage by Insurance ISLAM TAIB Talk on 25 October 2019.
- Leave Policy Awareness on 20 June 2019.

National Day 2020 Participation



On 23 February 2020, AITI joined the 36th National Day Marching Parade held in Bandar Seri Begawan for the second year in a row.

AITI's 85-member delegation proudly participated in the display of national spirit in celebration to commemorate the nation's independence.

Fixed Asset Disposal

Fixed Assets Disposal (FAD) is a process to dispose fixed assets, initiated by the FAD Committee followed by either a bi-annual stock take process and annual inventory listing or based on information provided by fixed assets owners.

In January and March 2020, AITI's FAD Committee endorsed the list of fixed assets to be destroyed, auctioned and donated, including office furniture and equipment, based on the recommendations of the Fixed Assets Inspection (FAI) Committee.

AITI Apprenticeship Programme

In March 2020, AITI introduced an apprenticeship programme to develop job-ready skills for the local talent by providing employment. Ten apprentices consisting of fresh graduates with

Bachelor's Degree and Higher National Diploma qualifications were recruited to join AITI's Apprenticeship Program for a minimum of 6 months.

Corporate Social Responsibility

AITI believes in giving back to the community and showing support to those who are in need. Corporate social responsibility helps build trust, raise awareness, and encourage social change. AITI is doing its part in contributing to positive impact to society by undertaking several initiatives:



- ▷ Donation to orphans in conjunction with WTISD 2019, 17 May 2019
- ▷ Ramadhan Donation Drive for underprivileged families, 18-19 & 28 May 2019
- ▷ Iftar event with orphans at Mulaut Mosque, 29 May 2019
- ▷ Humanitarian Fund for Palestinian Refugees, 11 June 2019
- ▷ Donation for flash floods' victims for AITI employees and the passing of AITI's immediate family members, 29 October 2019
- ▷ Maulud Nabi 1441 Food & Drinks Distribution, 3 October 2019

Business Continuity Plan (BCP) for COVID-19

On 11 March 2020, the World Health Organization declared COVID-19 as a pandemic. As stated in Prime Minister's Office Circular No. 01/2020, all agencies were encouraged to establish an Action Team as a preparation step during the virus outbreak.

AITI's Action Team comprised of the Senior Leadership Team (SLT) and the senior managers of Human Resource as well as the Corporate Communications. The team assumed the following roles and responsibilities:

- ▷ Provide a high-level steer on planning and measures to mitigate the impact of the COVID-19 pandemic to the business operations.
- ▷ Provide a high-level steer on planning and measures to mitigate the impact of the pandemic to

the employees, customers and stakeholders.

- ▷ Establish policies to be implemented during the pandemic outbreak.
- ▷ Allocate resources to protect employees and customers during a pandemic.
- ▷ Provide effective communication plan to communicate and educate the employees, customers and external stakeholders.
- ▷ Provide a high-level co-ordination with external agencies on issues pertaining to COVID-19.

AITI Services Goes Fully Digital

As a precautionary measure to combat the COVID-19 pandemic, AITI activated its Business Continuity Plan (BCP).

To ensure business can carry on as usual with minimal impact, customers can still access services via the AITI Online Portal even when the physical counters are closed.

Templates and guides for customers were provided to address common inquiries such as account registration and validation as well as making payments online. Additionally, a WhatsApp line was also implemented for faster response time between Customer Services Unit and the customers.

Implementation of Work From Home (WFH)

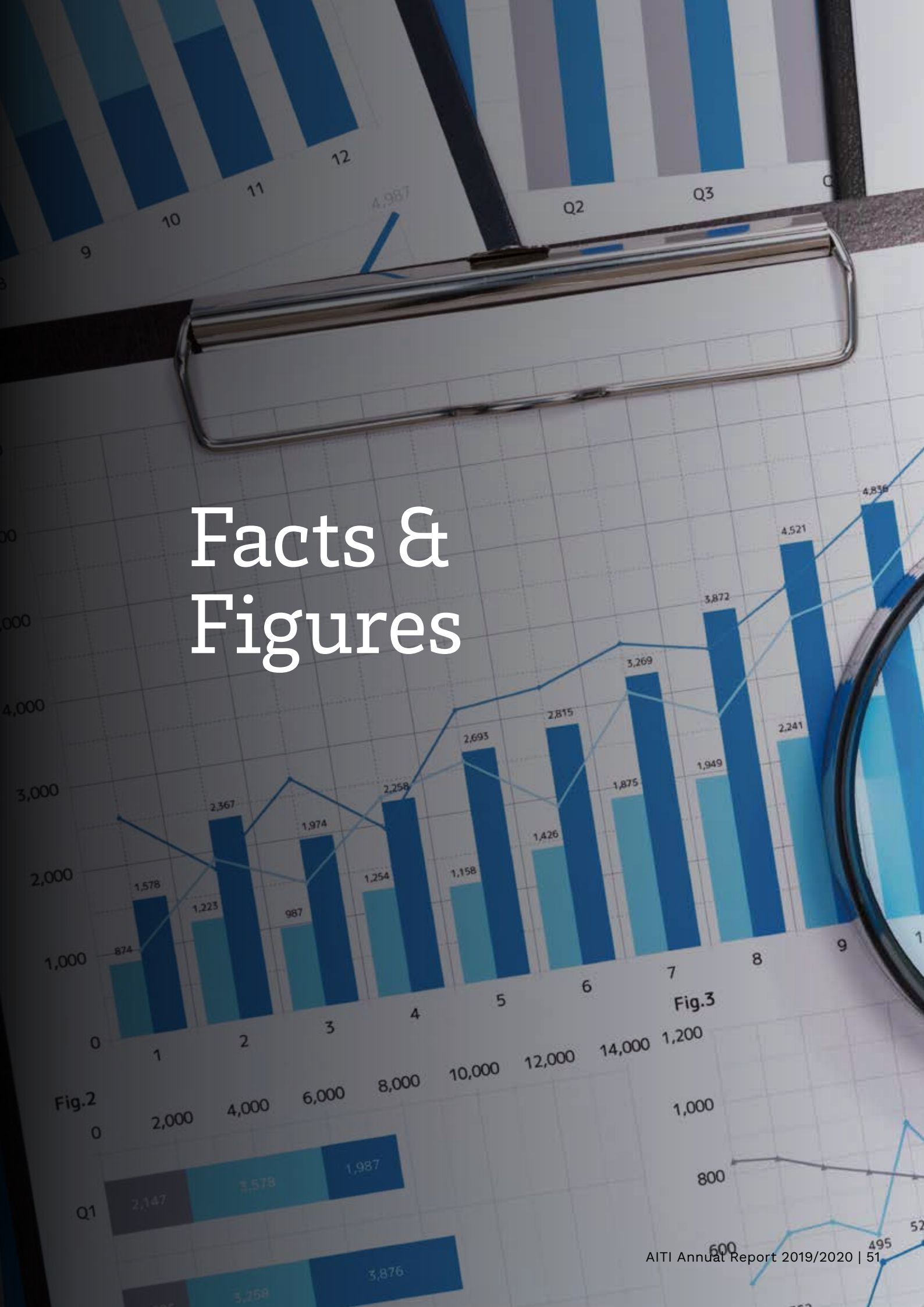
Work From Home (WFH) for all employees was implemented effective from 19 March 2020. Staff were divided into two teams where each team were required to WFH on alternate days.

Flexible work arrangements was be implemented through WFH for:

- ▷ High-risk employees such as pregnant women and employees with chronic illnesses.

- ▷ Employees who need to stay at home due to other reasons relating to COVID-19.
- ▷ Employees who are under quarantine and are at risk of close contact with COVID-19 cases.

Facts & Figures



Tariff Regulation



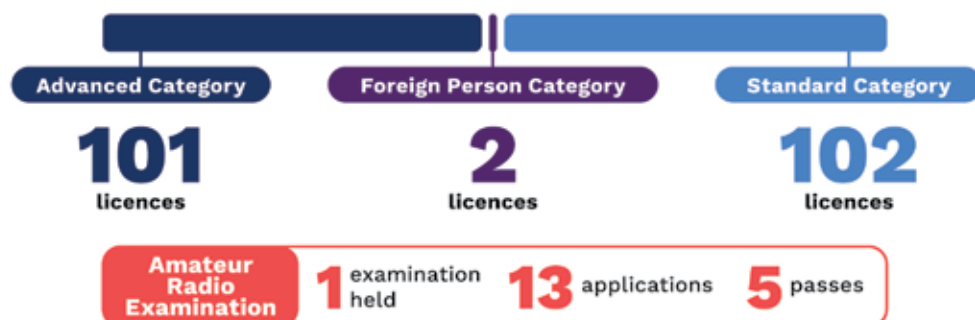
Equipment Importation



Dealer Licence



Amateur Radio Licence



Mobile Subscribers



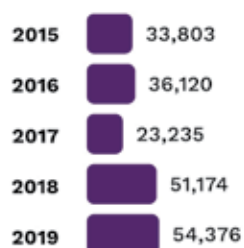
Mobile Broadband Subscribers



Fixed Line Subscribers



Fixed Broadband Subscribers



Infrastructure Providers for the Telecommunication Industry (InTi) Licensees

Bru-Haas (B) Sdn Bhd	Special Purpose Infrastructure
Unified National Networks Sdn Bhd	Mobile Telecommunication Infrastructure Non-Fixed Telecommunication Infrastructure Fixed-Wired Telecommunication Infrastructure Fixed-Wireless Telecommunication Infrastructure Special Purpose Infrastructure

Service Providers for the Telecommunication Industry (SeTi) Licensees

Arinc (Asia Pacific) Pte Ltd	Private Network Service
B1 Communications Sdn Bhd	Resale of Telecommunication Service Prepaid Telecommunication Service
Datastream Digital Sdn Bhd	Public Mobile Telecommunication Service Public Fixed Telecommunication Service Resale of Telecommunication Service Internet Access Service Bandwidth Exchange Service Private Network Service Prepaid Telecommunication Service
Imagine Sdn Bhd	Public Mobile Telecommunication Service Public Non-Fixed Telecommunication Service Public Fixed Telecommunication Service Resale of Telecommunication Service Internet Access Service Bandwidth Exchange Service Private Network Service Public Payphone Service Prepaid Telecommunication Service
Network Integrity Assurance Technologies Sdn Bhd	Public Non-Fixed Telecommunication Service Resale of Telecommunication Service Private Network Service Prepaid Telecommunication Service
Paradise Communication	Prepaid Telecommunication Service
Progresif Sdn Bhd	Public Mobile Telecommunication Service Public Non-Fixed Telecommunication Service Public Fixed Telecommunication Service Resale of Telecommunication Service Internet Access Service Bandwidth Exchange Service Private Network Service Prepaid Telecommunication Service
RigNet BRN Sdn Bhd	Resale of Telecommunication Service Private Network Service
Societe Internationale de Telecommunications Aeronautiques	Private Network Service
Telehub Sdn Bhd	Prepaid Telecommunication Service



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