

# OPERATING REVIEW

**M1 is Singapore's most vibrant and dynamic communications company, providing mobile and fixed services to more than two million customers. 2017 marked the 20<sup>th</sup> year of M1's launch in Singapore**

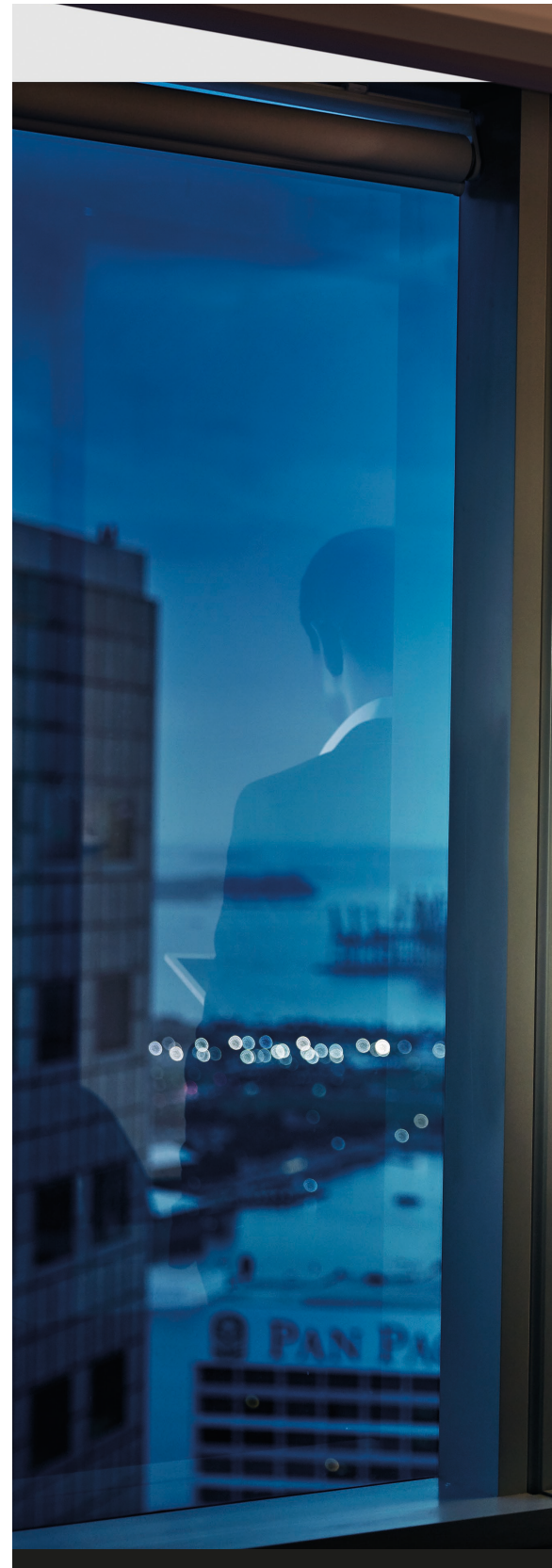
Since the launch of commercial services in 1997, M1 has achieved many firsts, including the first operator to offer nationwide 4G service, as well as ultra high-speed fixed broadband, fixed voice and other services on the Next Generation Nationwide Broadband Network (NGNBN). With a continual focus on network quality, customer service, value and innovation, M1's mission is to link anyone and anything; anytime, anywhere.

The M1 Group holds Facilities-Based Operator and Services-Based Operator licences for the provision of telecommunication systems and services, a Telecommunication Dealer's Class Licence, for the import and sale of telecommunication equipment, and a Remittance Licence to provide outward remittance services.

M1 operates nationwide 4.5G/LTE (Long Term Evolution) Advanced and 3G/High Speed Packet Access (HSPA) networks, capable of download speeds of up to 300Mbps. We offer customers a wide range of data, voice and value-added mobile services, with or without a device. Both mobile and fixed-line customers can access our International Direct Dial (IDD) services through the 002, 021 and 033 prefixes. M1 also trades wholesale voice minutes with other international and local service providers, and provides dark fibre services to carriers and data centres.

In the fixed space, M1 has a range of residential fibre broadband services that offer speeds of up to 10Gbps, including fixed voice and other value-added services.

For the corporate segment, M1's extensive suite of mobile and fixed services includes symmetrical connectivity solutions of up to 10Gbps, managed services, cloud solutions, cybersecurity solutions, Internet of Things (IoT) and data centre services. Our dedicated and highly-committed team of corporate account managers, along with our technical crew, provide customers with reliable support, round-the-clock.



## 2.03m

total mobile customer base as at end 2017



## First NB-IoT

commercial nationwide network in Singapore



## OUR MILESTONES SINCE ESTABLISHMENT

- Commercial launch of mobile services in April 1997
- Achieved 10% mobile market share within a month of launch, and profitability in the first full year of operations in 1998
- Listed on the Singapore Exchange in December 2002
- First operator in Singapore to launch:
  - 3G mobile services commercially in February 2005
  - Nationwide mobile broadband services in December 2006
  - Fibre broadband services on the NGNBN commercially in September 2010
  - Mobile broadband service on our 4G network in June 2011
  - Nationwide 4G service in September 2012
  - Singapore's fastest corporate broadband service on the NGNBN in May 2014
  - Nationwide LTE-Advanced service in December 2014
  - Commercial nationwide NB-IoT (Narrowband Internet of Things) network in August 2017
  - Symmetrical 10Gbps PON (passive optical network) corporate connectivity service in October 2017

**189,000**

total fibre customer base as at end 2017

**+24.5%**

year-on-year fixed services revenue

# OPERATING REVIEW

**M1 launched the world's first symmetrical 10Gbps PON connectivity service, as well as next-generation unified operations monitoring centre for real-time monitoring of network services and IT infrastructure in both private and public clouds**

For 2017, M1's operating revenue increased 1.0% year-on-year to S\$1,071.1 million. Service revenue continued its quarterly growth trend to close the year at S\$828.1 million, 2.8% higher year-on-year. Fixed services revenue increased 24.5% year-on-year to S\$129.7 million, and accounted for 15.7% of service revenue compared to 12.9% a year ago. Mobile data revenue increased 1.7 percentage points year-on-year to 55.7% of service revenue.

Net profit after tax decreased 11.5% year-on-year to S\$132.5 million, mainly due to higher handset loss, as well as higher depreciation and amortisation, and interest expenses. Net profit after tax margin on service revenue closed 2.6 percentage points lower at 16.0%. Free cash flow decreased 17.9% to S\$106.4 million as a result of working capital changes and higher capital expenditure. Net debt-to-EBITDA as at end 2017 remained healthy at 1.3 times.

As at end 2017, M1 had a total of 2,227,000 customers, comprising 1,292,000 postpaid, 747,000 prepaid and 189,000 fibre customers.

## MARKET DEVELOPMENTS

Based on Info-communications Media Development Authority's (IMDA) statistics as at end November 2017, Singapore's mobile market penetration rate was 149.6%, compared to 149.8% as at end 2016. There were a total of 8.4 million mobile subscriptions comprising 60.6% postpaid and 39.4% prepaid subscriptions.

For fixed broadband, the residential broadband penetration rate was 94.5% as at end November 2017. From end 2016 to November 2017, the total fibre market including both residential and corporate subscriptions grew 0.9% to 1,468,700. Over the same period, cable and digital subscription line (xDSL) subscriptions fell 23.8% to 185,800, and 47.0% to 35,000, respectively.

## MOBILE TELECOMMUNICATIONS

### POSTPAID MOBILE

Our postpaid mobile segment continues to be the key contributor to our revenue, making up 63.4% of our total mobile customer base as at end 2017 and 90.6% of our 2017 mobile telecommunications revenue. In 2017, we added 45,000 postpaid customers to bring our postpaid base to 1,292,000.

Driven by faster networks and devices, mobile data usage grew in 2017. Average data usage per smartphone customer increased to 4.3GB per month in the fourth quarter of 2017, up from 3.6GB per month a year ago.

Through the year, we continued to enhance and expand our products and services.

In February 2017, to provide customers more flexibility and value in using their local data bundles in overseas destinations, we launched two new regional Data Passports – one for nine ASEAN destinations and the other for 23 Asia destinations. With M1 Data Passport available in 56 popular destinations worldwide, the number of M1 customers using our data roaming services increased by more than 50% in 2017, with roaming traffic growing by more than 150%.

During the year, we made available several innovative large data plans to cater to consumers' growing data needs for social networking, and video and music streaming services on the move. In August, we launched Singapore's first unlimited data 4G mobile plan, mySIM<sup>3</sup> 98 at S\$98 a month. This was followed in October by the introduction of our mySIM<sup>e</sup> plans, with subsidised handsets included. The four new mySIM<sup>e</sup> plans start from 5GB data, 100 minutes of voice calls and 100 SMS at S\$40 a month, to unlimited data, voice calls and SMS, at S\$118 a month. We also released our mySIM<sup>s</sup> share plan,

**4.3GB per month**

average postpaid data usage per smartphone customer

**M1 Data Passport**

available in 56 destinations

enabling mySIM<sup>3</sup> and mySIM<sup>e</sup> customers to share their plan bundles with up to two other lines.

Stepping up our payment and cyber security service offerings continues to be a priority. In March, M1 customers gained the convenience of paying for purchases, from the App Store and for Apple Music and iTunes, directly from their postpaid mobile service accounts. To offer consumers always-on cyber protection, in September we launched M1 Mobile Guard, Asia's first network-based mobile malware detection solution. Subsequently, in December, we unveiled our new and improved M1 Cyber Guardian self-help portal. Enhanced features empower parents to monitor online time and content for their children across all their devices.

For corporate customers, we released M1 Enterprise Mobile plans in April. The service offers unlimited local messaging and voice calls, as well as data bundles of up to 12GB, usable across 56 popular business destinations at attractive rates.

We continued to partner device manufacturers to make a selection of new handsets, tablets, wearables and accessories available to our customers. Key models launched during the year include Apple iPhone X, iPhone 8 and iPhone 8 Plus, Samsung Galaxy S8, S8+ and Note 8, Huawei Mate 10, Mate 10 Pro, P10 and Nova lite, LG V30+ and G6, Oppo R11s and R11s Plus, as well as Sony XZ Premium.

### PREPAID MOBILE

M1's prepaid mobile service is mainly used by the migrant worker community, transient visitors to Singapore such as business travellers and tourists, and resident customers including parents who want to manage their children's mobile usage.

In 2017, our prepaid customer base decreased by 25,000 to 747,000, largely due to the cessation of 2G

network and services in April. In terms of usage trend, we continued to see the substitution of traditional voice services including IDD by the usage of OTT (over-the-top) services via cellular or WiFi networks, as well as increasing preference for data-centric services.

During the year, we enhanced our prepaid propositions to cater to customers' changing preferences. We also strengthened our services and tariffs in addition to the distribution of cards and top-ups on digital and traditional channels.

In 2015, we enabled our prepaid customers to use their data bundles in Malaysia and Indonesia, and three more destinations were added in 2016. In June 2017, we enhanced the prepaid roaming plans with the unique feature of bundled voice minutes for making short important calls when overseas. In addition, we launched two new plans offering the options to roam to 12 or 17 popular destinations, including Australia, Hong Kong, Japan, New Zealand and the United States. These plans come with 2GB data and 10 voice minutes.

To meet our prepaid customers' growing data needs, we launched M Cards that are bundled with larger data bundles in August 2017. 300MB, 500MB and 2GB data were bundled with the S\$2, S\$5 and S\$15 M Card activations respectively. In September, we further enhanced the attractiveness of data bundles by introducing larger data packs with free incoming calls, such as 7-day, 2GB Data Packs and 30-day, 6GB Data Packs. We also offered two new M Card Top-ups bundled with more data, SMS, local and international talktime.

In November, we introduced a new Tourist SIM Card. With a validity period of 10 days, the S\$50 Tourist SIM comes bundled with 100GB

local data, 5,000 local SMS and 3,000 local voice minutes. Besides local usage, tourists can enjoy 5GB roaming data in Hong Kong, Indonesia, Macau, Malaysia and Taiwan, and up to 50 voice minutes of international calls.

As a user experience enhancement, we launched M1 Prepaid portal in March 2017, and the M1 Prepaid App in November. Now, our prepaid customers can conveniently check balances, top up and purchase data packs on the go.

### FIXED SERVICES

In 2017, we added 29,000 customers to bring our fibre customer base to 189,000. This increase was driven by our competitive service plans, tactical promotions and bundled solutions such as mesh WiFi systems.

The majority of our fibre base are residential customers. They can choose from a wide range of M1's home fibre broadband plans and value-added services, from the lowest priced plan at S\$29 a month for 300Mbps to the ultra-fast 10Gbps plan at S\$189 per month.

The corporate fixed services business is a growth segment. While it made up 10% of our fibre base, the segment contributed around 50% of fixed services revenue for the year 2017. For this segment, we continued to strengthen our product offerings and competencies in areas such as ICT solutions. In October, M1 launched the world's first symmetrical 10Gbps PON connectivity service, as well as next-generation unified operations monitoring centre for real-time monitoring of network services and IT infrastructure in both private and public clouds. We also expanded our fibre-to-the-building infrastructure with full redundancy capability to more than 55 shopping malls, offices and commercial buildings to better manage provision of service end-to-end.

## M1 Prepaid App

launched in November 2017

## 10% of our Fibre Base

are corporate customers, contributing ~50% of fixed services revenue

# OPERATING REVIEW

## PRODUCTS AND SERVICES

M1's innovative and exciting products and services launched in 2017 include:

- **Mobile remittance service:**  
Launched in April, M1 Remit offers a fully digital experience for money remittance. This service enables customers to access real-time exchange rates and remit funds to their designated recipients anytime, anywhere, through a mobile application or a browser on their smart device. Recipients are able to cash-out as quickly as within an hour of the transaction, from over 23,000 cash agents and 640 banks in the destination countries – the biggest cash-out network for any mobile remittance service in Singapore. M1 Remit currently offers nine remittance destinations – Bangladesh, India, Indonesia, Myanmar, Malaysia, Sri Lanka, Pakistan, Philippines and Thailand.
- **M Card roaming services:**  
Launched in June, the prepaid roaming plans enable M Card customers to stay connected during their holidays and avoid the hassle of queuing to buy a local prepaid card upon arrival. The plans, priced at S\$15 and S\$28, are usable across 12 and 17 popular holiday destinations respectively, including Australia, Hong Kong, Japan, New Zealand and the United States – the widest selection of destinations of any prepaid roaming plan. The 2GB



## M1 Remit

remit funds anytime, anywhere

## MySIM<sup>3</sup> 98

first unlimited local data  
4G mobile plan for postpaid  
customers



data and 10 voice minutes available on both plans are valid for 10 days from the activation date.

- **Enhanced mySIM plans:** The new data-centric MySIM<sup>3</sup> 98 and MySIM<sup>e</sup> 118, launched in August and October respectively, offer our postpaid customers unlimited local data bundle. With the new mySIM<sup>e</sup> plans, customers have the option to get their favourite smartphone or tablet at a more affordable price. We also introduced the mySIM<sup>s</sup> share plan, which enables mySIM<sup>3</sup> and mySIM<sup>e</sup> customers to share their plans with up to two other lines.
- **Mobile malware detection solution:** In partnership with Nokia, we launched M1 Mobile Guard, Asia's first network-based mobile malware detection solution in September. Powered by Nokia's NetGuard Endpoint Security network-based anti-malware solution, M1 Mobile Guard offers users the convenience of always-on protection and device health assessment, detecting, alerting and eliminating any threats found. The service is available at S\$2 per month.
- **True gaming experience:** M1 GamePRO 1Gbps is a customised broadband plan for gamers. Running on a dedicated network with managed custom routing to overseas gaming servers, GamePRO users will enjoy a smoother gameplay with the highest prioritisation in data traffic and lower latency. In December, GamePRO was bundled with the Linksys WRT32X gaming router; this enables serious online gamers to enjoy an optimised gaming experience while simultaneously managing other online traffic in the home to ensure other devices and activities are not compromised.

- **All-in-one cyber parental control:** Launched in December, M1 Cyber Guardian is a network-based all-in-one solution that enables parents to monitor online time and content for their children across all their devices at home and on the go. Previously known as Internet Parent Control, this enhanced service packs additional features including a self-help portal that enables parents to better customise and manage a healthier internet usage experience for their children.
- **M1 Enterprise Mobile:** To better serve the needs of corporate customers, we released two M1 Enterprise Mobile plans in April. M1's Enterprise Mobile 6, priced at S\$61 a month, comes with a 6GB data bundle, as well as unlimited local voice minutes and messaging. The Enterprise Mobile 12 plan, priced at S\$75 a month, offers 12GB of data for corporate customers that require even more data. A key feature on both plans is the unique M1 Enterprise Data Passport enabling the customer's data bundle to be used across 56 popular business destinations. International voice calls are also available at an affordable S\$0.10 per minute through M1's unified communications service.
- **Next-generation symmetrical connectivity:** M1 made available the world's first symmetrical 10Gbps PON in October. The new symmetric PON service enables M1 to deliver highly reliable, low-latency symmetrical 10Gbps upload and download speeds with guaranteed bitrates islandwide. Enterprises can leverage on this connectivity for cloud computing, software-defined networking (SDN), 4K/8K video transfers, and other applications.

## M1 GamePRO

optimises gaming experience

## M1 Enterprise Mobile Plans

up to 6GB data bundle with  
unlimited local voice calls and data  
roaming across 56 destinations

# OPERATING REVIEW

**M1 launched Southeast Asia's first and the world's second commercial nationwide NB-IoT network. This network will catalyse smart solutions innovation and support Singapore's transformation into a Smart Nation**

- **Unified Operations Monitoring Centre (UOMC):** Launched in October, our next-generation UOMC enables our customers to access real-time information not just for network services, but also IT infrastructure in both private and public clouds. Advanced technology built into the architecture will deliver predictive information such as early warning of impending equipment failure. This enables customers to take proactive action to rectify potential faults before they occur. The UOMC can also partner and inter-operate with other security operating centres (SOCs), to address increasingly advanced cyber threats and to streamline IT incident management.
- **High-speed fibre network to buildings:** M1 has expanded its fibre network to enable high-speed corporate connectivity services at more than 55 shopping malls, offices and commercial buildings. This network enables M1 to better manage provision of services end-to-end, such as shorter activation within seven to 10 days of sign-up compared to the current 14 days, and provide service level agreement of up to 99.999%.
- **Cloud services for digital start-ups:** In November, M1 made available a new cloud offering designed for Singapore's digital start-ups and Small and Medium Enterprises. The service empowers users to rapidly develop software-based products and grow their businesses without hefty up-front infrastructure expenditure. M1 also enhanced its next-generation Software-Defined Data Centre (SDDC) portfolio, powered by the VMware Cloud Provider™ programme, with container support through Pivotal Container Service™ (PKS). This new cloud offering allows access to production-grade Kubernetes and natively-supported toolkits, which supports faster

deployment of containerised workloads across private and public clouds. Digital start-ups can shorten the innovation cycle and go to market faster, while saving on investment in on-premise infrastructure.

## SALES AND DISTRIBUTION

As at end 2017, we operated 11 M1 Shop outlets, to provide customers with convenient access to our products and services. To further expand our reach and accessibility, we also partnered exclusive distributors such as Arrow Communications, Big Box Singapore, and Handphone Shop, and conducted regular roadshows at high-traffic locations such as shopping malls, migrant worker dormitories, and major consumer technology events.

M1's e-Shop exists to meet our customers' increasing preference to engage with us online. Through our online pre-order and collection system, they enjoy a better service experience with the ability to: choose their preferred product models, make payment, and select their preferred location for collection or make arrangements for delivery. Customers who choose to collect their handsets from M1 Shop outlets enjoy shortened collection times of as low as 10 minutes. Customers also have the flexibility of collecting their handsets outside of our outlet operating hours as we offer the option of delivering to POP Stations islandwide for pick-up anytime, 24 hours a day, seven days a week. During the year, we saw an increase in utilisation of the online channel, especially during the launch of popular models. Online transactions made up 56% of total transactions in 2017, compared to 49% in the previous year.

## BRAND

2017 marked the 20<sup>th</sup> year of M1's launch in Singapore. To celebrate our anniversary, we partnered Cirque du Soleil once again to bring KOOZA, yet

55

additional shopping malls, offices and commercial buildings connected with M1's fibre network

KOOZA

in partnership with Cirque du Soleil to celebrate our 20<sup>th</sup> anniversary

another amazing and captivating Big Top production, to Singapore.

In June 2017, a new brand campaign, entitled "I'M1" was launched on TV, print, online and outdoor advertising channels. The campaign showed the inspirational story of M1, which has challenged industry status quo and championed choice for our customers for generations. Together, we have become the changemakers from all walks of life.

We continued to build affinity for the brand, as well as our products and services through engagement programmes with our customers on social media channels.

## CUSTOMER EXPERIENCE

We continued to strengthen the customer experience across all touch points throughout the year.

Our postpaid customers are now using the refreshed My M1 App to obtain near real-time usage information and self-manage their account-related services, such as roaming and value-added service subscriptions. To date, 78% of our smartphone customers use My M1 App to manage their services. Adding to the success of the My M1 App, we introduced a similar App for our prepaid customers.

We also adopted leading-edge Artificial Intelligence technology to launch our very own Chatbot, Mindy, who assists customers with queries on our products and services.

The streamlining of the online Registration of Interest and Pre-Order for the purchase of newly-launched handsets was also warmly received by customers. Our new purchase flow involves less steps and clicks for a faster and smoother purchase experience.

At the heart of our excellent customer service is our staff. Their positive engagements with our customers were duly recognised at the highly-regarded annual Excellent Service Awards (EXSA).

M1 staff received 16 Star, 48 Gold, and 106 Silver awards compared to 11 Star, 41 Gold, and 94 Silver awards in the previous year. EXSA, a national award that recognises individuals for their outstanding service, is managed by seven industry bodies and supported by SPRING Singapore.

The Contact Centre Association of Singapore Awards 2017 also honoured our staff with both the Best Contact Centre Team Leader and Best Customer Service Professional of the Year awards.

Our continued efforts to better serve our customers have shown results with an improved score year-on-year in the Customer Satisfaction Index of Singapore for 2017, in both the Mobile Telecoms and Broadband segments.

## NETWORKS

M1 has invested more than S\$2.0 billion in our mobile and fixed networks since our inception. Through continual investment in new networks and technology, we enhance the customer experience, improve business productivity and offer our customers the latest products and services, often ahead of competition.

Key network initiatives in 2017 include:

- **35Gbps in 5G trial:** Together with Huawei, M1 successfully demonstrated Singapore's highest 5G transmission speeds of 35Gbps. 5G technology will support a massive number of low-latency connections critical to driving the next wave of virtual/augmented reality and IoT applications such as autonomous driving, and powering smart applications that will fundamentally transform lives of Singaporeans in a 'Smart Nation'.
- **Cloud-based virtual core network:** Together with Huawei, M1 introduced Singapore's first cloud-based virtual Enhanced Packet Core (vEPC) network solution, to enhance M1's core network robustness and resiliency.

The solution also enables dynamic and more efficient use of network resources to support wide-ranging Smart Nation use cases, and shortens the time to market in the deployment of new IoT services. It will significantly improve network performance and enhance customer experience.

- **NB-IoT network:** M1 launched Southeast Asia's first and the world's second commercial nationwide NB-IoT network. This network will catalyse smart solutions innovation and support Singapore's transformation into a Smart Nation. The IoT, in enabling hyper-connectivity to millions of devices, sensors and services, is a key Smart Nation building block. With the launch of M1's NB-IoT network, solution providers and businesses can now develop and deploy new IoT-enabled solutions, such as smart energy management for buildings, asset tracking and fleet management. This will also fuel the development of many more solutions in the future.
- **Cessation of 2G services and retirement of 2G network:** The evolving technology landscape has seen consumers migrating to 3G and 4G technologies to enjoy more services and higher data speeds. This has brought along the retirement of the 2G network and cessation of 2G services, an exercise which was conducted in the second quarter of 2017. Working closely with IMDA, M1 partnered community groups to reach out to seniors and other 2G mobile users. At no additional cost, we assisted their transition to 3G/4G services without the need to re-contract to any plan; a range of affordable handsets was also made available for their use. First introduced to Singapore in 1994, the retirement of the 2G network has allowed for the re-allocation of scarce radio frequency spectrum to meet increasing demand for higher-speed mobile services.

# I'M1

brand campaign  
embodies M1's  
inspirational story

# 16 Star 48 Gold 106 Silver

EXSA awards received  
by M1 staff

# OPERATING REVIEW

- **Integrated Small Cell/WiFi (HetNet):** Customer demand for data continues to grow, driven by faster networks and high-bandwidth mobile applications such as video streaming, social media and online gaming. Heterogeneous Network (HetNet), the integration of large and small cells with different wireless radio technologies, such as cellular and WiFi, enables M1 to provide the best coverage and network capacity to meet this growing demand. M1 is the largest Wireless@SG WiFi operator in Singapore with more than 10,000 access points. To complement our advanced 4.5G network, M1 deployed an overlay of integrated small cells and WiFi equipment to 300 high-traffic hotspots nationwide, including MRT/LRT stations, bus interchanges, major commercial buildings, malls and popular outdoor areas around Marina Bay.
- **Drones on 4.5G HetNet:** As drones become more commonplace today, M1 and Nanyang Technological University have conducted successful trials and embarked on research to develop M1's 4.5G Heterogeneous Network (HetNet) for the traffic-management of unmanned aerial systems (UAS) in Singapore's urban environment and its surrounding sea-to-shore coverage. The findings will provide valuable insights for unmanned operations using the future 5G Ultra-Reliable Low-Latency Communication (URLLC) network.

