



## >> Chairman of Executive Committee Message

## Executive Committee Report

The Executive Committee comprises of four (4) members namely Mr. Allen Lew Yoong Keong as Chairman, and Mr. Gerardo C. Ablaza, Jr., Mr. Somchai Lertsutiwong and Mr. Paiboon Panuwattanawong as members.

In 2017, the Executive Committee held a total of eleven (11) meetings and performed its duties in accordance with the authorities and duties in its Charter. The summary of the Executive Committee's performance for the year 2017 are as follows:

1. Reviewed and approved the Company's strategic direction, management structure, and annual business plan and budget and proposed to the Board of Directors for approval.

2. Monitored the financial and operational performance of the Company and report to the Board of Directors for acknowledgement.

3. Considered, provided opinions and concurred with the execution of investment transactions and projects, and proposed to the Board of Directors for approval.

4. Considered and reviewed the Company's risk management undertaken by the Risk Management Committee and proposed to the Board of Directors for acknowledgement.

5. Prepared this Executive Committee Report for the year 2017 and disclosed in the annual report.



Mr. Allen Lew Yoong Keong  
Chairman of Executive Committee

# Revenue Structure

## Revenue structure from providing service & sales income in AIS group to the third party within 3 years

Service / Product	Operation By	% Holding of shares	2015		2016		2017	
			Million Baht	% Size	Million Baht	% Size	Million Baht	% Size
Mobile phone service								
- Mobile phone services & rental and call center services	AIS		7,467	4.81	414	0.27	30	0.02
	AWN	99.99	117,370	75.60	124,922	82.11	127,506	80.84
	DPC	98.55	4	-	-	-	-	-
	AIN	99.99	1,272	0.82	370	0.24	233	0.15
	AMP	99.99	224	0.14	190	0.12	183	0.12
	FXL	99.98	30	0.02	149	0.10	172	0.11
	ACC	99.99	4	-	1	-	-	-
- Construction income from the Agreements for operation	AIS		64	0.04	-	-	-	-
Sub-Total			126,435	81.43	126,046	82.84	128,124	81.24
Mobile phone sales								
	AWN	99.99	23,736	15.29	23,197	15.25	24,353	15.44
	WDS	99.99	4,091	2.63	750	0.50	425	0.27
Sub-Total			27,827	17.92	23,947	15.75	24,778	15.71
Data network and broadband Service	ADC	51.00	3	-	3	-	2	-
	SBN	99.99	884	0.57	596	0.39	352	0.22
	AWN	99.99	127	0.08	1,558	1.02	4,466	2.83
Sub-Total			1,014	0.65	2,157	1.41	4,820	3.05
Total Revenue			155,276	100.00	152,150	100.00	157,722	100.00

## Revenue structure by service type

Service / Product	2015		2016		2017	
	Million Baht	% Size	Million Baht	% Size	Million Baht	% Size
Voice	60,547	38.99	51,250	33.68	42,829	27.15
Non-voice	53,193	34.26	63,857	41.98	76,062	48.23
Fixed broadband	120	0.08	860	0.57	3,128	1.98
IR and Others	6,760	4.35	6,594	4.33	6,564	4.16
Service revenue excluding IC	120,620	77.68	122,561	80.56	128,583	81.52
Interconnection (IC)	6,794	4.38	5,665	3.72	4,364	2.77
SIM and Handset	27,798	17.90	23,924	15.72	24,775	15.71
Construction	64	0.04	-	-	-	-
Total Revenue	155,276	100.00	152,150	100.00	157,722	100.00

## Products and Services

In 2017 AIS continued to consolidate our position as the mobile services where we launched new packages to better serve the current mobile data usage of our customers on the nationwide 4G network. Several attractive models of handsets were also selected to campaign and fit customer lifestyle. In addition, we continued to expand our fibre broadband coverage, currently available in 50 cities, and offer new digital services that respond to customers' need for both consumers and corporates.

Today AIS is operating three core businesses with key products and services below.



### Mobile business

- Mobile network
- Prepaid and postpaid service
- Handset-bundled campaigns
- International roaming and direct dialing



### Fixed broadband business

- Fibre service for households
- Convergence product
- Fibre packages for SMEs



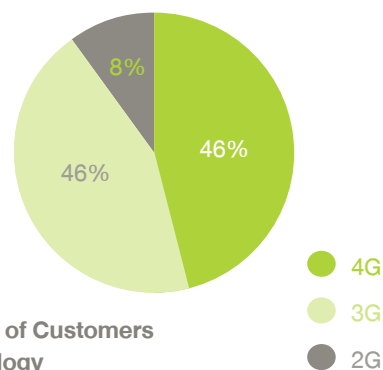
### Digital service business

- Video content
- Enterprise cloud
- Mobile money
- Internet of Things

### 1. Mobile Phone Business

AIS operates 4G/3G/2G mobile services. As of 2017, AIS had a total of 40.1 million mobile numbers, 7.4 million of which were postpaid and 32.7 million prepaid. Our service is operated on the telecom licenses granted by the NBTC.

At the end of 2017, AIS had in total 55MHz of bandwidth consisting of both high bands on 2100 and 1800MHz, a total of 45MHz (the license scheme and a partnership with the TOT), and a low band on 900MHz, accounting for 10MHz (under the license scheme). All frequencies are managed to provide 4G, 3G, and 2G technologies depending on customers' needs in each area. AIS' mobile network covers 98% of population. AIS had also designed the network with due consideration populated areas, including both far-away places, such as newly-born communities, new tourist attractions, and high-traffic areas, such as city areas, main roads, tourist attractions, and high-rise buildings. AIS also provides more than 90,000 access points of AIS Super WiFi which can render a maximum speed of 650Mbps. AIS Super WiFi is mainly installed in places where customers tend to move less, such as in department stores, chain stores, coffee shops, and offices. The combination of mobile network and AIS Super WiFi complements each other to give reliable connectivity which helps increase customer's experience with AIS. Today more than 46% of customers used 4G to consume mobile data and content.



Proportion of Customers by Technology

## » Packages and SIMs in 2017

## Prepaid Service

In 2017 AIS continuously adjusted prepaid offerings to better suit customer behavior. Overall, prepaid customers would like to use the service only in the time they desire. For example, some prepaid customers prefer to be on a daily plan, some on

a weekly plan. Prepaid customers might not need maximum speed of connectivity, but rather required smooth connectivity and speed for sufficiently accessing social media.



- **SIM Super Play**

This SIM gives full 4G speed and is suitable for consuming mobile entertainment such as video and multi-media streaming. Customers can use AIS PLAY application unlimitedly including 1 GB of YouTube and other popular music applications such as JOOX.



- **SIM Super Social**

This SIM corresponds well with an increasing trend of social media such as Facebook, LINE, Facebook messenger, and Whatapps. Customers can use mobile unlimitedly at fixed speed of 1 Mbps on eight popular social media applications as well as 3 GB of AIS Super WiFi at the full speed of 650 Mbps.



- **SIM Sood Koom**

This SIM aims to support modern trade channels such as Tesco Lotus, BIG C, and Family Mart. SIM Sood Koom is cheaper than other normal SIMS so as to encourage customers entering convenient stores.



- **SIM Freedom Unlimited**

This SIM allows customers to use 512 kbps of internet unlimitedly, appropriate for service social media such as LINE, Facebook, and Instagram. The SIM also gives unlimited AIS Super WiFi and free calls on AIS network during 10pm – 5pm. Customer pays only Baht 99 per week.

## Postpaid Service

Postpaid customers were given more data allowance to service the internet, compensated with a small increase in monthly fees. Postpaid is suitable with those customers who call or connect all the time without a need to worry about usage leakage. This includes privilege in, for example, watching free data-charging movies, series, and world-class sports. Examples of postpaid packages are below.

- **4G Max Speed Package**

This package enhances customer usage from the full speed of 4G, suitable for watching movies on a handset with Full HD quality, listening to music, and serving social media applications. This package has two types.

- › Baht 299-999 per month: customer can use 4G starting from 1 GB to 20 GB, after which customer can continue using the internet at a pre-determined speed.
- › Baht 1,099-1,899 per month: customer can use unlimited 4G without speed drop. If customer uses a compatible handset equipped with the Multipath TCP, he or she can experience AIS NEXT G network with a maximum speed of 1 Gbps.

Subscribers of this package will be given privilege to watch movies, series, and world-class sports free of data-charge on AIS' 4G network.

- **Package Buffet Net**

The Buffet Net package is suitable for customers who would like to use unlimited internet at a desired speed to suit their own behavior. The speed provided is in a range of 512 kbps to 6 Mbps between a price of Baht 350 to Baht 600 per month. This also comes with unlimited YouTube, Facebook, LINE, other social media as well as a privilege to watch movies and live TV on AIS PLAY without data charged.

In addition to the normal prepaid and postpaid packages, customers can buy on-top packages to use more voice and data at their own wish. In 2017, customer behavior has changed into buying more fixed-speed unlimited on-top packages, which came in a form of per month basis or shorter. Customers can buy these on-top packages conveniently from several channels i.e. USSD code registration, online web-based eService, or via applications such as my AIS and LINE.

- **Packages for the disabled**

AIS gives high importance to all customers including the disabled in order to give them an equally full access to telecom services for both prepaid and postpaid. An example for a prepaid service for the disabled is a 10% bonus on top of a normal top-up whereas customers can get a 10% discount on a normal postpaid monthly package. Investors can see more detail at [http://www.ais.co.th/one-2-call/promotion/hearing\\_impaired.html](http://www.ais.co.th/one-2-call/promotion/hearing_impaired.html)

- » **AIS Hot Deal**

Throughout 2017 AIS ran the AIS Hot Deal campaign where we selected mid- to high-end smartphones from several brands for customers to pick at attractive discounted prices. This applied to many subscribed formats focusing on postpaid customers such as a new postpaid registration (with some advanced payment for the package), new postpaid numbers, a mobile number port as well as a prepaid moving to postpaid. Please see more information at [www.ais.co.th/hotdeal](http://www.ais.co.th/hotdeal)

- » **International Roaming and International Direct Dialing**

AIS provides international roaming services for AIS customers travelling abroad to use mobile services for voice calls and data by roaming abroad on our partners' network, without changing SIM and phone number. AIS has agreements with 479 international operators in all continents, covering 232 countries to provide International Roaming services. AIS has the largest 4G roaming network coverage in Asia by partnering with 194 international operators in 111 countries. We also provide international direct dialing (IDD) services for international call from Thailand to more than 240 foreign countries. In 2017, AIS has expanded retail roaming packages to cover more than 160 countries. These roaming packages provide worry-free roaming experience of both voice and data roaming to AIS customers. Customers can roam onto our partners' 4G network and use full speed of internet. After customers use up the data allowance, they can continue to serve the internet at a pre-determined speed without changing the mobile number as well as no data leakage assurance.

AIS has SIM2FLY products offering super saving in roaming as prepaid SIM for Non-Stop internet roaming starting from Baht 399. Customers can make phone calls to Thailand or receive calls starting from only Baht 6 per minute. In 2017, AIS has expanded SIM2Fly to cover more than 60 countries in all continents providing convenience and good value to customers. SIM2FLY can be bought in Thailand before traveling and used upon arrival at destination.

## 2. Fixed Broadband Business

AIS has invested in around 150,000 km of fibre optic cables nationwide to connect all of our mobile base stations. This places AIS Fibre in the strong position of not having to invest in developing this infrastructure from scratch, allowing us to focus on investing in fibre wiring for connecting customers' premises to the infrastructure. Following the rising demand for and higher reliability of the fibre technology, AIS has invested promptly in this service which has expanded to cover 50 cities and reach a total of 521,200 subscribers in just three years.

AIS Fibre offers packages suitable for different needs including the recently launched price plans that offer AIS Fibre at the same prices as ADSL and VDSL technology in order to persuade customers to upgrade onto fibre. In addition, AIS Fibre offers high-speed packages ranging from 50 Mbps up to 1 Gbps to attract customers who need high-speed internet at home as well as those who have large-sized families. In the middle of 2017, AIS Fibre first launched a full convergence product which combines world-class content such as Hollywood movies and sports with our AIS PLAYBOX to create differentiation in the market. Examples of these highlight packages are as follows.

HomeBROADBAND Package		
Max Speed Internet (Download/Upload)	Standard Price (Bath./Month) (Exclude VAT)	AIS Postpaid Customer (Bath./Month) (Exclude VAT)
30/10	590	531
50/20	777	699
75/30	888	799
100/40	999	899

- HomeBROADBAND A package for customers to use full-speed of internet

HomePLUS Package				
Broadband Internet with AIS PLAYBOX				
Max Speed Internet (Download/Upload)	Standard Price (Bath./Month) (Include Vat)	AIS Postpaid Customer (Bath./Month) (Include Vat)	AIS Serenade (Bath./Month) (Include Vat)	TV movies, series, cartoons and news from world-class channel with AIS PLAYBOX
30/10	690	631	-	Enjoy free 100+ TV channel with high resolution Free 12 months
50/20	877	799	699	
75/30	988	899	-	
100/40	1,099	999	899	

- HomePLUS A package for customers to use full-speed of internet with AIS PLAYBOX

PLATINUM offers internet package with world-class entertainment from 40 premium channels.				
HomePREMIUM Package				
Max Speed Internet (Download/Upload)	Standard Price (Bath./Month) (Include Vat)	AIS Postpaid Customer (Bath./Month) (Include Vat)	TV movies, series, cartoons and news from world-class channel with AIS PLAYBOX	
50/20	1,444	1,299	 	
75/30	1,555	1,399		

- HomePREMIUM A package for customers to have both AIS PLAYBOX and premium world-class content



**AIS Fibre POWER 4**  
**AIS Fibre Power4 Package**  
 Mobile Unlimited Data (Max Speed)

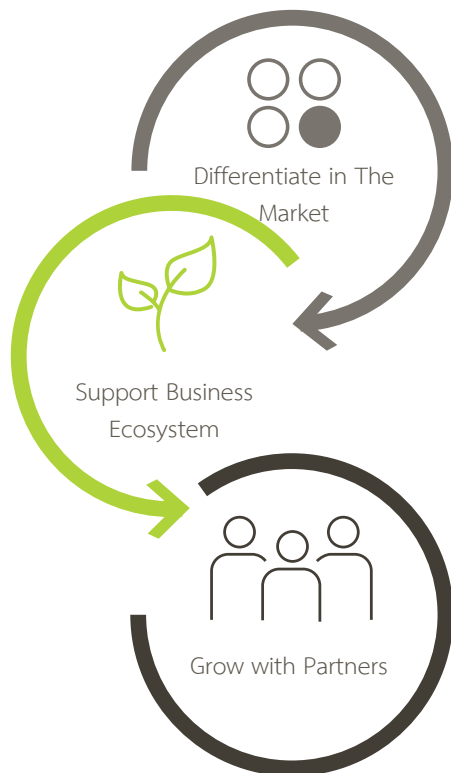
Price (Baht/Month) (Exclude Vat)	Max Speed Internet (Download/Upload)	The ultimate world class entertainment with AIS PLAYBOX	Mobile Unlimited Data (Max Speed)	With Unlimited
599	30/10 Mbps		Max Speed up to 1 Mbps	
<b>Best Deal!</b> 799	50/20 Mbps	PLATINUM 2GB Free 12 months	Max Speed up to 4 Mbps	
<b>Best!</b> 1,099	100/30 Mbps	HQQG Free 12 months	Max Speed up to 6 Mbps	
1,799	100/40 Mbps	PLATINUM 2GB Free 12 months		
1,999	200/50 Mbps	HQQG Free 12 months		

- **Power4** Apart from high-speed household internet, AIS Fibre also aims to create higher value for customers by leveraging other services under AIS to provide in one package named “Power4”. This is the first Fixed-Mobile Convergence, the package combining the fixed broadband, content, mobile data allowance, and AIS Super WiFi.

Max Speed Internet (Download/Upload)	Max Speed Internet Speed Boost in Day Time (Download/Upload)	FREE! Monthly service fee for AIS Fixed Line 100 Baht	Standard Price (Baht/Month) (Exclude Vat)
30/30 Mbps	100/100 Mbps	Free Call 50 Minutes*	790
50/50 Mbps	200/200 Mbps	Free Call 100 Minutes*	1,190
100/100 Mbps	300/300 Mbps		1,990

- **PowerBOOST** The PowerBOOST package is suitable for SMEs who require the internet at the office at attractive prices. This comes with automatic speed uplift in the daytime and is equipped with a home line number. We believe this market has a potential to grow in the future.

### 3. Digital Service Business



In 2017, AIS made a strong announcement of our position as the Digital Life Service Provider whereby we deliver digital services to support and strengthen both our mobile and fixed broadband businesses. AIS focuses on working with partners to create new digital services which enable AIS to own a variety of products while saving on investment costs. Our digital services are focused in four areas, namely video content, Enterprise Cloud, mobile money, and the Internet of Things (IoT). These products will create a new source of revenue on top of the regular voice call and mobile data usage revenue streams. Details of AIS’s digital services are as follows

#### 3.1 Video Content

There has been a dramatic shift in customers’ lifestyles over recent years. A large number of activities are conducted through smart devices. It is now easier than ever before to use smart devices to communicate with friends, engage in e-commerce, and watch TV and videos on the smaller screen of a handset. With this in mind, in January 2016 AIS launched new digital broadcasting and OTT (Over-the-top) businesses to provide music, karaoke, and games via our AIS PLAY application, available on both mobiles and tablets. Also, in April 2015, AIS launched internet television on AIS PLAYBOX via the AIS Fibre service.



**AIS announced partnerships with content providers to launch a variety of OTT contents** such as movies, Hollywood series, HOOQ, Netflix, ViU (Korean series), NBA (world-class basketball leagues) as well as free digital and satellite channels. This comes in both forms of live and video on demand such as HBO GO and can be accessed via both AIS PLAY and PLAYBOX.

### 3.2 Enterprise Cloud

“AIS Business Cloud” was launched during the year of 2017 to offer our Enterprise customers Cloud service, platform and infrastructure for business purpose which demand highest security and high performance. Enterprise customers are now transforming their investment of which a cloud service with the agility and scalability can answer to their business needs. Those demands drove the cloud market to achieve more than 20% YoY growth.

**AIS has the ability to provide the end-to-end cloud services** that span colocation and infrastructure as a service (IaaS), including virtual machine, data storage, disaster recovery as a service, which can support business continuity for enterprise customers when required. AIS also provides our enterprise customers with database as a service (DBaaS) as an effective management database which offers the advantage of cloud usage for both expense and performance management.

**The cloud service from AIS comes with the best end-to-end security** from network to cloud platform. Above that, AIS also provides Software as a service (SaaS) such as Office365, mForm, the Mobile Threat Prevention App, and Enterprise Storage Box, all of which are supplemented by consultancy services from AIS experts and supported by collaborations with key global partners. In addition, AIS colocations are housed in three tier-4 equivalent Datacenters in Bangkok and vicinity as well as Songkhla, which are ISO27001 certified. AIS Cloud business is designed to support the sustainable growth and digital transformation of enterprise customers by empowering them to compete in an environment of dynamic business competition. Investors can find more detail at <http://business.ais.co.th/th/product/enterprise-cloud>

### 3.3 Mobile money

In 2017, the government supported the development of the national electronic payment infrastructure and platform (National e-Payment) with the aim of developing a cashless society. AIS's mobile payment platform, mPAY, has played a key



role in advancing the national PromptPay system from the bank sector to the non-bank sector through the launch of “mPAY PromptPay”. This has opened up opportunities for all members of society to use mobile banking, especially those who do not have a bank account but have a mobile number. The safe and convenient service is offered in the form of an e-Wallet, which is secured by a 15-digit ID and enables the user to not only make payments but also transfer and receive money via the mPAY application. We also developed a new payment dimension where customers can use mPAY to make payments at retailers with the PromptPay QR Code (including QR Codes issued by banks) without the need to carry cash. We also use the same security system as financial institutions and support the real digital payment platform in daily life, on top of the existing money payment/transfer/withdrawal services on mPAY.

### 3.4 Internet of Things or IoT

The IoT (Internet of Things) is a new opportunity that opens for new solution/applications developers to create new way of effective communication between devices and applications for various uses. With an aim to support the country towards Thailand 4.0 in accordance with government's policy to uplift the life quality of Thai people, we place IoT as one key strategic focus.

**AIS has been preparing our network to embrace IoT technology** and announced the launch of the latest NB-IoT (Narrow Band – IoT) in February 2017 to become the first company in the South East Asia region to introduce this technology. We aim to fulfill the needs of digital business by providing an international-level standard of technology that will enable developers, universities, start-ups and enterprises to come up with IoT solutions that are applicable not only to business or government entities but also to Thai people as end-users.

**AIS also focuses on creating an ecosystem for IoT services.** In 2017, we launched the “Mobike”, an application used for renting and returning bicycles in university campuses. This has created additional opportunities for developing new services that respond to changing customer lifestyles. AIS also places emphasis on developing an IoT ecosystem in which we welcome both local and international partners to provide service on AIS's networks, both wireless and wireline, in all industries through our Network and IoT Platform Enabler. This is the first step to making the Smart City concept a reality and marks tangible progress in Thailand's move into the digital era.

# Distribution Channel

AIS distribution channels are divided into 4 main categories, details of these channels are as follows:

**1. “AIS Shop”:** These are service centers managed by AIS and selected distributors with high service potential. AIS Shops offer the most comprehensive range of products, services and after sales services when compared with other channels. They focus on distribution to customers in densely populated urban areas and are focused on creating and maintaining a positive image for AIS products and services. In the past year, AIS started to improve the image of this service centers in order to provide a digital experience for our customers. Through the opening of “AIS The Digital Gallery”, shops become virtual innovative technology centres for the digital world, and our product display format is changed to that of an art exhibition on intelligent display stands or “AIS Intelligent Units”.



AIS Shop



Distributors



Direct Sales Channels



Electronic and self-service Channels

**2. Distributors:** AIS has cooperated with a variety of distributors in order to cover the needs of a wide range of customers throughout the country. For example, “AIS Telewiz” partners have strong potential in downtown city areas and provide AIS brand image-level service; retail and wholesale distributors and “AIS Buddy” provide access to district and sub-district areas; and large retail stores and modern trade retailers offer nationwide distribution and easy access for IT customers. These channels include Tesco Lotus and Big C, as well as IT retail outlets, such as Jaymart, TG Fone, and Bangkok Telecom. In this past year, AIS has also developed mobile and tablet applications to help enhance sales and services for these distributors.

**3. Direct Sales** by the AIS Direct Sales team, with an emphasis on postpaid customers. This channel increases distribution efficiency by offering products and services directly to customers, for example, via sales booths or through the organization of activities in target group areas. In 2017, AIS developed our capabilities and promoted sales by making improvements to the “AIS Easy App”, helping the direct sales team in selling, registering and providing services to customers more efficiently, conveniently, and speedily.

**4. Online Distribution Channels:** In today’s society, customers tend to carry out their own transactions online, whether by using applications, self-service channels, or other electronic channels. Therefore, AIS aims to expand our distribution platforms and services to reach 80% of Thai internet users within 4 years. Digital technology will also be used to better and more deeply understand customer needs and therefore provide products and services that meet individual needs as well as to build better brand engagement. In the long-term, we will transform our own online channels into platform provider that enables business partners in ecosystem to gain access to new sources of revenue.

Throughout the past year, AIS has developed our own platform to present products and services under the name

“AIS Now”. This platform is connected to the Digital Brain system of AIS and will analyze the behavior and needs of customers. AIS Now is embedded in various popular websites in the country, so that when customers visit these sites, AIS Now will offer products and services that meet the needs of each individual customer via advertising banners on those websites.

AIS also provides top-up services through a variety of electronic channels. There are over 500,000 top-up points nationwide, including automatic top-up machines and ATMs, while customers can also pay via the mPAY and AIS Online Top-Up applications.

An overview of online sales growth shows that our annual growth rate increases every year. In 2017, we experienced a growth rate of 11% when compared to 2016, and transaction value grew 6% higher than the target.

# Industry Outlook 2017 and 2018

## Industry conditions and competition in 2017

### Frequency Allocation Act (Edition 2) announced and regulatory fee reduced to 4% of service revenue

There were two important cases of regulatory change in the Thai Telecom industry in 2017. Firstly, in May the NBTC announced a reduction of the Universal Service Obligation (USO) fee from 3.75% of service revenue to 2.5%, resulting in a decline in the regulatory fee for license holders from 5.25% of service revenue down to 4%. Secondly, during the middle of 2017, the Frequency Allocation Act (Edition 2) 2560 BE was announced in the Royal Gazette and became effective on 23 June, 2017. The Act entails regulations on the selection and appointment of the seven members of the NBTC commissions to replace the existing acting NBTC members whose terms expired in October 2017. The selection and appointment process started in December 2017 and will take approximately 150 days to complete. The NBTC is in charge of regulating the Telecom industry and ensuring service continuity including planning a new spectrum roadmap for frequency allocation and license auctions for the future.

### Growth in 4G usage driven by increasing video content and smartphone popularity

The Thai telecom industry continued to grow in 2017, driven by the increasing usage of mobile data. Consumers continued to shift their internet usage behavior to mobile internet accessed via smartphones and tablets. This trend can be seen in the popularity of social media applications such as LINE and Facebook as well as in other mobile tools used for transferring money and for e-commerce. There was also an upward trend in mobile data usage from consumers watching linear, playback, and on-demand television shows, listening to music, and playing games on mobile devices. All of these activities were supported by the expansion of the quality 4G network by mobile operators aiming to improve the customer experience. Currently, around half of total of users are 4G active users, while usage on 3G and 2G networks is gradually declining. The smartphone market also continued to grow on the back of the continuously-enhanced functionality of high-end models, while the low- to mid-end models focused on value for money to attract customer purchases. Overall, smartphone adoption has increased to stay around 70%.

### Focusing on postpaid in response to customer behavior

In 2017, Thailand's mobile industry was comprised of 22% postpaid subscriptions and 78% prepaid, changing from 19%:81% in 2016. There was a focus on the postpaid market segment by all operators based on the fact that the ARPU is higher among postpaid customers (Baht 540) than among prepaid customers (Baht 150) as of 2017. Postpaid customers also showed higher brand loyalty to the operator. Therefore, operators launched initiatives to attract new postpaid customers, including attractive discounts when registering a new SIM and enabling mobile number portability when moving from prepaid to postpaid. A free handset was offered in some campaigns, while in other cases, operators offered a 10%-50% discount on the handset price of selected smartphones or the monthly fee for customers subscribing to a certain package. Conversely, there was no growth in the prepaid segment due to the postpaid conversion trend and an overall reduction in promotional campaigns for this segment. In addition, industry handset subsidies declined in 2H17 as operators tried to control costs and maximize their invested capital.

### Convergence packages gradually becoming popular

With attractive offerings on mobile data having become a key factor for customers when choosing a carrier, operators have been utilizing product convergence to provide integrated packages that combine voice calls, limited and non-stop data, as well as video content at various levels of pricing that are cheaper than buying the individual services separately. For operators offering only mobile products, it became necessary to base their marketing on cheaper pricing in certain segments in an effort to attract price-sensitive customers. Overall, packages were promoted upon the strength of the 4G-speed network. Meanwhile, unlimited data packages continued to be popular in Thailand, including packages with unlimited but speed-capped data at, for instance, 1Mbps, which were well received in the market. Nevertheless, operators continued to face a challenge in terms of monetizing customers' desire to consume video content or new formats of social media. In the early stage, operators have provided customers with a free trial period to get them accustomed to consuming the content when subscribing to selected packages.

### Fixed broadband market moving to fibre technology to keep up with expanding demand

The fixed broadband market continued to grow in 2017 following ongoing urbanization and the demand for wired connectivity at home in Thailand. The overall market grew from 7.2 million connected households in 2016 to 8 million in 2017, with customers given more choices to select from. Although 60% of all connected households still used ADSL technology, FTTH has become one of the first choices in customers' minds due to being available at a similar price to ADSL but with higher quality. Moreover, customers subscribing

to high-end fibre packages can enjoy a speed of at least 50 Mbps, which is beyond the limits of ADSL technology. Therefore, fixed broadband operators have attempted to expand their fibre coverage and have been offering existing ADSL customers an upgrade to fibre at the same price in an effort to retain their subscriber base. As seen in the mobile market, convergence operators are able to provide higher value in each package by combining a fibre service with a mobile SIM and video content to create more attractive choices for customers.

## Industry trends in 2018

### Continuing prepaid-to-postpaid migration to drive industry revenue growth

In 2018, it is expected that the Thai Telecom industry will continue to expand, driven by the continuing shift in customer behavior to consuming more data and video content on smartphones after becoming more familiar and incentivized to do so through attractive packages. This will result in a continuation of postpaid growth, especially from prepaid migration. Also, as Thailand has 130% mobile number penetration with increasing stickiness to use existing numbers as evidence of transactions, it is expected that total mobile numbers will either grow slightly or not at all. However, ARPU is expected to increase due to the higher proportion of postpaid customers and the new abovementioned services. Market competition will continue because the industry is still transforming from concession to license. The result of upcoming auctions, potentially held next year, will play an important role in determining the market direction. Nevertheless, all operators are attempting to control expenses in order to generate a healthy return for shareholders, which should result in stabilized or slightly declining heightened market competition.

### Mobile payments and services on Internet of Things supported

The consumption of products and services through cashless transactions will continue to be supported by the government and other industries which have the potential to offer their products online. New services based on connected equipment will become more prevalent following the growing trend of the

Internet of Things (IoT), especially the Narrow-band IoT (NB-IoT) technology deployed to connect a number of devices with only a low volume of frequency. This technology can offer new services in addition to the normal data consumption on mobile devices, such as the deployment of Smart Parking and other services whose commercial ecosystems are approaching readiness and reinforced by partnerships among operators, vendors, universities and government agencies.

### Raising fixed broadband standard to 50–100 Mbps

The fixed broadband market will continue to grow on the back of increasing demand to use the internet at home as well as a drive by operators to expand fibre coverage. Packages with a speed of at least 50 Mbps will be more popular, while 100 Mbps packages will be easier to access. The ARPU level in the industry is expected to remain in the range of Baht 600–700 per month. Moreover, the trend of consuming television and video content via IPTV will continue due to faster connectivity and increased signal reliability. 4K content, which cannot be broadcast on the current digital television platform, will be another important factor influencing customers' decisions to subscribe to a broadband package and watch content on IPTV. It is also expected that convergence packages will gradually become more popular underpinned by service variety and value for money.

## Business Direction over The Next 3–5 Years

Evolving digital technologies and more sophisticated customer needs are emerging and taking a major role in the structural change for telecom operators. The wider ability of technologies not only has altered customer behavior to access more comprehensive services but also provide an opportunity to mobile operators to access into broader marketplaces. In the light of these trends, AIS has redefined aspect of ourselves from a traditional mobile operator to a “Digital Life Service Provider”, delivering convergence products and services, which includes mobile, fixed broadband, and contents bundling services to enrich people’s daily life, business capabilities, and the competitive edge of the country. Toward these, we have geared toward Digital Transformation to take advantage of technologies to expand our capabilities, efficiency and to capture the growth in the digital era.

### Building future network for superior experience and operational efficiency

“Digital technologies will be adapted to streamline operation including consolidating overlapping capability and automated core process.”

Along with the rapid growth of smartphone adoption and faster connections through 4G networks, AIS witnessed an abundant growth of mobile internet usage beyond a simple need for connectivity. Digital platforms have empowered the way people live and work, and become necessity for many users. We have continuously strengthened our market leadership position with a focus on quality of networks and services while stay ahead of the technology upgrade. AIS has started to deploy the NB-IOT (Narrowband Internet of Things) in limited scope to test and try and be ready for the future-proof 5G ready network. In the foreseeable future, our telecommunication infrastructure will be developed to be nimble, flexible and cost effective by enabling Software-Based Approach. Digital technologies will be adapted to streamline operation including consolidating overlapping capability and automated core process. For example, transformation of IT systems to cloud friendly architecture and Network Functions Virtualization (NFV), which mainly needs significantly less hardware. Our future network will not only allow the superior experience, which

suits the needs in digital era but also enhance operational efficiency and cost optimization to the company.

### Bringing in fibre technology to capture underserve demand in broadband market

“We see the potential growth in this market and target to become one of the significant players in residential broadband market within 2020.”

With technology advancement, future digital services are deemed to require higher network specification. For example, the high resolution contents such as 4K and 8K contents are designated clearer and sharper pictures on a television screen but require higher speed for internet connection than the currently widely used full high-definition (full HD) streaming. Those requirements can be fulfilled through fibre technology, which provides faster and more reliable connection than ADSL technology. We see the potential growth in this market and target to become one of the significant players in residential broadband market within 2020. By utilizing the nationwide fibre optic from its mobile networks, AIS Fibre will continue to tap into the new urban areas and reach out to those underserve demand from those who has limited access to the internet and those who use obsolete ADSL technology. The coverage expansion of fiber optic technology will allow AIS to deliver the services to capture the growth opportunities according to the future trends with Economy of Scales.

### Building new growth area through enhancing digital ecosystem

“AIS’ strategy is to fully integrate the digital ecosystem by working alongside leading technology partners both local and international in different fields.”

The growing digitalization of consumers and businesses has brought new opportunities for mobile operators to create value to products and service with integration on

Internet of Things (IoT) and digital services. AIS continued to leverage its core strengths, including telecommunication infrastructure, large customer base in mobile segment, and strong branding position to create products and services beyond connectivity with an integration of digital technology and IoT in relevant to the future demand. Our strategy is to fully integrate the digital ecosystem by working alongside leading technology partners both local and international in different fields ranging from start-ups, content providers, Over-The-Top (OTT) players to equipment manufacturers. By combining specialty and experience of each parties with AIS' platform, we are enabled to serve emerging customers and business's needs. We are committed to create a win-win scenario and sustainable growth to all stakeholders. These will complement our convergence strategy to provide relevant digital services through seamless integration of our network, platform and partner's solutions. It will not only enrich customer's lifestyle but also bring in both differentiation and customer stickiness to AIS. In 2017, AIS launched the first convergence package combining mobile, fixed broadband and digital contents to the market. In the future, the company will shift its focus from offering mobile service for an individual to convergences services for family members in each household.

### **Empowering enterprise segment with end-to-end ICT services**

**“With extensive mobile network, the company aims to capture growth potential by providing comprehensive end-to-end services.”**

As the business world goes digital, cloud and ICT solution are they key enabling digital transformation and are underway to create compelling value to every enterprise, ranging from SMEs to large organization. To support the growing needs, AIS stepped further into the enterprise segment by partnering with leading providers in ICT spaces while expanding IDC footprint to the new location. With extensive mobile network, the company aims to capture growth potential by providing comprehensive end-to-end services e.g. Managed services,

ICT solutions, IDC, and Business Cloud to the enterprise segment. These services will enhance business capability, ensure system security and optimize operational cost and capital expenditure for enterprise customers as well as the serves enhance to the country's economic development and competitiveness in the fast changing environment.

### **Transforming to digital organization and leveraging technologies to improve sales and operational efficiency**

**“Machine learning and Artificial Intelligence (AI) will be embedded in our service and operation innovations, resulting in improved sales and efficiency.”**

As we are gearing toward digital transformation, our ambition is to create the capability of fully leveraging the new technologies both digital operation process and customer services. Above all, we believe that our employees are one of the key to our long term success. They will be equipped with relevant skills, knowledge, and powerful tools. To start with, in 2017, AIS set the foot on this by allocating the budget of Baht100million and introducing AIS Innovation Centre and learning platform to build staff competency and encourage the growth mind-set to be ready for the disruptive innovation. In the near future, Predictive Analytics Tools will be embedded, supporting staff to develop effective cross selling offers to a micro segment, serving individual needs. Customer Value Management will evolve into the next step with analytical based to improve customer retention. Customer services will converge to full digitization customer journey. Machine learning and Artificial Intelligence (AI) will be embedded in our service and operation innovations, resulting in improved sales and efficiency. For example, AI will empower customers to access and interact with Self-Service platform 24/7 via their fingertips. This digital transformation will not only enhance customers' digital experience but also improve cost and operational efficiencies as well as enhance revenue generation.



## Risk Factors

To identify the risk that might have potential impact to AIS's business objectives, goals as well as business opportunities, AIS has considered the following factors:

1. Internal and external factors such as human resources, changing of technology and regulations, customers behaviors as well as business environment
2. Potential adverse events such as flood, fire or other natural disasters or ongoing conditions that result in inefficient work practices or business competitiveness
3. Past events, current exposures and future trends
4. Significant movement of economy, society and environment
5. Causes of events
6. New initiatives or new products and services that AIS is seeking to develop
7. Opportunities to identify new value adding activities

### Risk identification process

Management and employees identify their own functional risks.

Risk Management working group considers and selects those identified functional risk and propose to Risk Management Committee as corporate risks.

Risk Management Committee consider the proposed risks and prioritize based on its impact and likelihood. The process includes risk assessment according to risk appetite and risk tolerance, and identify mitigation actions to encounter with those risks. Risk Management Committee, then, proposes to the Board of Directors for acknowledgement.



## Significant Risk Factors

### Risks from Regulatory and Government Policies

Risk Issues	Description of Risk	Potential Impact	Mitigation Plan/Progress	Risk Movement from 2016
1.1 Risk from changes in government policies, rules, regulations and orders of regulators	AIS operates under the supervision of NBTC, the organization regulating the telecommunications business who has legal authority in issuing rules, regulations and orders to regulate the licensees. The rules, regulations, and orders issued in the future, such as fixing tariff structure and service fees, or issuing rules and measures for consumer protection, might affect to business operations, reduce the Company's ability to generate profit and/or might increase the cost services.	1. Business operations 2. Revenue and cost 3. Company's reputations	AIS has the unit responsible for a work related with NBTC directly. Which it is responsible for regularly monitoring the issuance and change of regulations for report to management and coordinate with relevant departments to be informed promptly and ready to respond. Including performed as intermediate to coordinate with NBTC for the NBTC will have been given information of the business impact of regulations. The Company would have the opportunity to raise our concerns or make comments, suggestions and/or oppositions if the enactment of the laws, rules, regulations and/or orders is deemed to have seriously affected the Company's operations, or has been unlawfully conducted. Furthermore, the Company, as a telecommunications service provider which is a direct stakeholder, would be invited to provide opinion and comment on the drafts of laws, rules, regulations and/or orders which will be issued for enforcement in the future.	—
1.2 Disputes over revenue sharing relating to excise tax	(1) Case between AIS and TOT submitted a dispute to AIS demanding that the Company pay an additional share of revenue of Baht 31,463 million. Currently, TOT has appealed this judgment to the Supreme Administrative Court. (Further details, please see "Legal Dispute" in Form 56-1)	1. Financial status 2. Company's reputation	On 13 July 2017, the Central Administrative Court has announced an order of the Supreme Administrative Court where the court has rejected an appeal against the order of the Central Administrative Court submitted by TOT. Since this case was forbidden to appeal, as a result, the case has become final, in this regard the Company has no obligation to pay an additional benefit as requested by TOT	—
	(2) Case between DPC and CAT submitted a dispute to DPC, demanding that DPC pay an additional share of revenue under the Digital PCN (Personal Communication Network) Agreement, plus a penalty totaling Baht 3,410 million. (Further details, please see "Legal Dispute" in Form 56-1)	1. Financial status 2. Company's reputation	This case is in considering of the Supreme Administrative Court. If the Supreme Administrative Court revokes such Arbitrator's Decision, DPC may be obliged to pay CAT as demanded. However, the management of AIS firmly believes that this case shall reach a positive conclusion since the share of revenue demanded by CAT is equal to the amount of excise tax which has already been paid by the Company according to the unanimous resolution of the Arbitral Tribunal, which dismissed the dispute.	—

## Risks from Regulatory and Government Policies

Risk Issues	Description of Risk	Potential Impact	Mitigation Plan/Progress	Risk Movement from 2016
1.3 Dispute over revenue sharing from interconnection charges	TOT has demanding that the AIS pay the share of revenue from the interconnection charges of the concession in the defined amount plus interest by did not allow AIS deducted the interconnection fee charged from other operators. (Further details, please see "Legal Dispute" in Form 56-1)	1. Financial status 2. Company's reputation	At present, the case is pending consideration of the Arbitral Tribunal and may take several years to conclude. If AIS loses the case, it may be obliged to pay TOT as demanded. However, the management of AIS firmly believes that the resolution of the Arbitral Tribunal will reach a positive conclusion for the Company since it has fully complied with the law.	—
1.4 Dispute DPC and regarding the reduction of roaming charges between DPC and the Company	DPC submitted a dispute requesting CAT to revoke the allegations that DPC was in breach of the Roaming Service Agreement due to the agreement between AIS and DPC and DPC demanded that CAT pay compensation. While, CAT submitted a dispute to the Arbitration Institute demanding that DPC pay additional remuneration for concession years incurred due to the reduction of the roaming charge rate between DPC and AIS. (Further details, please see "Legal Dispute" in Form 56-1)	1. Financial status 2. Company's reputation	At present, such disputes are pending consideration of the Arbitral Tribunal. If DPC loses the case, DPC may be obliged to pay CAT as demanded. However, the management of AIS believes that the ruling of the Arbitration Panel of this case shall decide in favor of DPC as DPC had informed CAT that it was applying a roaming rate in July 2006. CAT had then given its written approval of this rate. In addition, CAT had never sent any refusal or objection to DPC during the disputed periods. The roaming rate is also in conformity with market conditions as approved by the NTC.	—
1.5 Dispute DPC and CAT on tower and power supply ownership	CAT submitted a dispute demanding that DPC deliver and transfer ownership of 3,343 Towers including 2,653 units of Power Supply equipment under the terms and conditions of the Digital PCN (Personal Communication Network) Agreement. After DPC failed to do so, CAT demanded that DPC pay Baht 2,230 million to CAT as compensation. (Further details, please see "Legal Dispute" in Form 56-1)	1. Property used in business operations 2. Financial status 3. Company's reputation	On 12 June 2017, DPC has received the notice from the Central Administrative Court regarding the order to allow CAT renounce its request to revoke the decision of the Arbitral Tribunal, and order to dispose the case from the directory. However, there is a possibility for CAT to submit this dispute to the Arbitration Institute again.	—

### Risks from Regulatory and Government Policies

Risk Issues	Description of Risk	Potential Impact	Mitigation Plan/Progress	Risk Movement from 2016
1.6 Dispute AIS and TOT on 900 MHz subscribers migration to 3G 2100MHz.	TOT submitted a dispute demanding AIS to pay compensation from the 900MHz subscribers porting to 2100MHz provided by AWN, which considered as a breach of the Concession Agreement for operation between TOT and the Company for the migration occurred during a period of May 2013 to June 2014.	1. Financial status 2. Company's reputation	Currently, the case is in the Arbitration process. If AIS loses the case, AIS may have to pay compensation plus interest as demanded by TOT. However, the management of AIS believes that the result of the dispute should be settled favorably due to the migration was done following the desire of subscribers, as a result, the Company is not considered as a breach of the contract as claimed by TOT.	—
1.7 Dispute Case regarding Companies not collecting all information from prepaid subscribers under NBTC Notification regarding Prepaid Identification.	According to NBTC order that requiring AIS and the other 2 major mobile phone operators in this telecommunication industry to pay an administrative fine in the amount of Baht 80,000 per day until such time as the operators fully comply with the order that mobile phone operators must collect and record all required information of all prepaid subscribers within the specified time.	1. Financial status 2. Company's reputation	At present, the case is pending the consideration of the Supreme Administrative Court. If AIS loses the case, AIS may have to pay an administrative fine of Baht 80,000 per day, from 6 July 2012 until the date that AIS can comply with the said order of the NBTC. However, the management of AIS believes that this dispute will be resolved in a positive way due to the fact that NBTC and all mobile operators had a concerted effort to record all prepaid subscriber information to facilitate the compliance of the telecommunication business with such order. The effort includes a joint development of an application called "2 Snap Shot" to facilitate a simpler and quicker registration of prepaid subscriber of which the information can be directly submitted to the system of mobile operators. The application is deployed throughout various distribution channels as an additional method to filling out the registration form and recording a copy of the identity card. Recently, several Biometric identification methods such as fingerprint and face recognition are used as one of the registration methods in order to record subscribers' information more efficient and accurate.	—

## Risks from Regulatory and Government Policies

Risk Issues	Description of Risk	Potential Impact	Mitigation Plan/Progress	Risk Movement from 2016
1.8 Dispute regarding revenue share for providing National Roaming Service	TOT issued a letter to AIS notifying it that AIS has not paid TOT the full share of revenue owed from the National Roaming Service. TOT has requested AIS to pay TOT an additional share of revenue from the National Roaming Service in the amount of Baht 13,341 million. (Further details, please see “Legal Dispute” in Form 56-1)	1. Financial status 2. Company’s reputation	In this case, should TOT bring this issue to the arbitration process, the management of AIS believes that this issue can be opposed because AIS has done everything correctly subject to the Concession Agreement. Moreover, the supervision and control of service fees are regulated by NBTC.	—
1.9 Dispute between AIS and TOT Public regarding the titles of towers	AIS requested the arbitral tribunal to find that the Company’s signaling towers are not equipment and assets to be transferred to TOT and that AIS owns the signaling towers; and to request TOT to return the associated revenue which it had already been paid by AIS. (Further details, please see “Legal Dispute” in Form 56-1)	1. Property used in business operations 2. Financial status 3. Company’s reputation	Presently the dispute is under the arbitration process. The management of AIS believes that the dispute will end favorably because AIS and TOT are currently negotiating to become business partners.	—

### Risks from Regulatory and Government Policies

Risk Issues	Description of Risk	Potential Impact	Mitigation Plan/Progress	Risk Movement from 2016
1.10 Dispute regarding the request from TOT to AIS to transfer additional equipment used for the operation of the 900MHz Cellular Telephone System	TOT requested that AIS transfer additional assets used in the operation of the 900MHz Cellular Telephone System to TOT. TOT considers that such assets are equipment and tools which the Company provides for the operation of the 900MHz Cellular Telephone System and, as such, is obligated to transfer the assets to TOT as defined in the Concession Agreement. However, AIS considers that such 6 systems as requested by TOT are not equipment and tools for the operation of the 900MHz Cellular Telephone System as defined under the Concession Agreement. (Further details, please see "Legal Dispute" in Form 56-1)	1. Property used in business operations 2. Financial status 3. Company's reputation	Should TOT bring this dispute to the arbitration process, the management of AIS believes that the dispute can be settled via negotiation since currently AIS and TOT are currently negotiating to become business partners.	—
1.11 Dispute regarding Claim for additional revenue from the 6 <sup>th</sup> and 7 <sup>th</sup> Amendments to the Concession Agreement	TOT requested AIS for the payment of additional revenue in the amount of Baht 62,773 million. TOT claimed such additional payment based on the ground that the 6 <sup>th</sup> and 7 <sup>th</sup> Amendments were of significant amendment which caused TOT to receive lower revenue than the rate as specified in the Concession Agreement. (Further details, please see "Legal Dispute" in Form 56-1)	1. Financial status 2. Company's reputation	At present, the dispute is under the consideration of the arbitrators. The management of AIS believes that twice of the Concession Agreement are binding and effective until the expiration of the Concession Agreement on 30 September 2015, and AIS has fully complied with all concerned Agreements. Moreover, the Council of State opined on this matter that the amendments to the Concession Agreement between TOT and AIS that the amendment process of the Concession Agreement which is the administrative contract can be separated from such amendment attached hereto, the amendments have still been in effect as long as it is not revoked or terminated by time, or otherwise. Furthermore, the twice Amendments had never been revised or revoked until the 30 September 2015, which is the ending date of the Concession Agreements. Therefore, the outcome of the said dispute should be settled favorably and have no considerable impact.	—

## Risks from Regulatory and Government Policies

Risk Issues	Description of Risk	Potential Impact	Mitigation Plan/Progress	Risk Movement from 2016
1.12 Dispute regarding the claim for the sage/revenue arising from the use of telecommunication equipment and telecommunication network during the temporary (1800MHz) customer protection period after the Concession ended.	CAT filed a lawsuit against DPC to the Central Administrative Court to pay for the fees and revenue from the usage of telecommunication equipment and telecommunication network of CAT during the temporary customer protection period announced by NBTC following the Expiration of the Agreement for operations or Telecommunication Service Agreement. (Further details, please see “Legal Dispute” in Form 56-1)	1. Financial status 2. Company’s reputation	Currently, the dispute has been considered by the Central Administrative Court. However, if DPC loses the case, DPC may have to pay the usage fee and revenue, plus interest from the usage of telecommunication equipment and telecommunication network to CAT. Therefore, the management of AIS believes that the DPC has no obligation to pay for the usage fees and revenue from the use of telecommunication equipment and telecommunication network as claimed by CAT due to the service provided to the subscriber according to NBTC’ regulation, DPC did not rent such telecommunication equipment and telecommunication network from CAT. Namely, CAT and DPC have served together in providing services to subscribers. Therefore, the outcome of the case would be resolved positively.	—
1.13 Dispute over revocation of the NTC order regarding to revenue incurred from the temporary service (1800MHz and 900MHz) for customer protection period after the Concession end	NTC has demanded DPC and AIS to deliver revenue at remedy period starting after end of concession agreement including interest. (Further details, please see “Legal Dispute” in Form 56-1)	1. Financial status 2. Company’s reputation	Presently, the said case is in the process of the Central Administrative Court. If DPC and AIS loses the case, DPC and AIS may have to submit the revenue sharing plus interest to NBTC. However, the management of AIS considered that the DPC and AIS has complied with NBTC announcement regarding the Temporary Customer Protection Plan Following the Expiration of the Agreement for operations or Telecommunication Service Agreement 2012, that requires DPC and AIS to submit the revenue after deducting any expense to NBTC but DPC and AIS has the expenses more than the revenue incurred from the service. Therefore, DPC and AIS has no revenue remain in order to submit to NBTC as stipulated in the announcement.	—

### Risks from Regulatory and Government Policies

Risk Issues	Description of Risk	Potential Impact	Mitigation Plan/Progress	Risk Movement from 2016
1.14 Dispute regarding the revenue payment to NBTC according to the remedy period of the subscriber in 900 MHz	The notice of NBTC and the conclusion of NTC about the temporary service for customer protection period after the Concession end no. 2 which enforce the mobile phone operators to pay the revenue occurred during the remedy period to NBTC after expense deduction but the amount of this revenue must not be less than the percentage of revenue sharing being used to pay in the Concession Agreement as of the last day prior to the Concession end. (Further details, please see “Legal Dispute” in Form 56-1)	1. Financial status 2. Company’s reputation	Presently the said case is in the process of the Central Administrative Court. The management of AIS believes that this notification is discriminate among the Operator which the Concession had ended prior to this Notification (no. 2) be effective. This notification is also undue burden to AIS either concession agreement was ended which is not the purpose of this notification issuance to protect the customer during the remedy period. In this case, if AIS loses the case, AIS shall have to pay the revenue plus interest as claimed by the NBTC.	—



## Operational Risks

Risk Issues	Description of Risk	Potential Impact	Mitigation Plan/Progress	Risk Movement from 2016
2.1 Risk to information security and threat from cyber-attack	<p>The Company has rapidly developed a variety of products and services to serve customer's needs and increase convenience. The technology is necessary to develop and improve the services. The advanced technology may also come with a risk of information technology. Such risks comprised by the complexity of the technology itself, gaps in the skill and knowledge levels of the Company's employees, the potential deficiency of the Company's own system and external threats or any cyber-attack.</p> <ul style="list-style-type: none"> <li>• If information security system is insufficient or incomplete, it will cause to get seriously impact to the company especially significant data.</li> <li>• Threat from cyber-attack e.g. DDoS Attack, Website phishing, Malware/Virus etc. which may cause to business disruption</li> </ul>	<ol style="list-style-type: none"> <li>1. Financial revenue</li> <li>2. Business or IT systems disruption</li> <li>3. Company's Reputation</li> </ol>	<ol style="list-style-type: none"> <li>1. Information security regulations</li> <li>2. Apply an international standards e.g. PCI-DSS, ISO 27001:2013 Information Security Management System etc.</li> <li>3. Extend and expand security appliance tools to cover all significant systems.</li> <li>4. Enhance information security measures e.g. a revision of the access control procedure, a closed working environment etc.</li> </ol> <p>Build IT Awareness to all entire the company.</p>	➤

## Operational Risks

Risk Issues	Description of Risk	Potential Impact	Mitigation Plan/Progress	Risk Movement from 2016
2.2 Risk from major network failure or interruption to important systems	In case of uncontrollable disaster, natural disaster or any crisis event affect to the company which may lead to primary operating system and business disruption	<ol style="list-style-type: none"> <li>1. Financial revenue</li> <li>2. Business or IT systems disruption</li> <li>3. Company's asset</li> <li>4. Employee</li> <li>5. Company's reputation</li> </ol>	<ol style="list-style-type: none"> <li>1. Business Continuity Management Policy (BCM Policy)</li> <li>2. Business Continuity Plan (BCP) both enterprise and departmental level</li> <li>3. Annual review and exercise of Business Continuity Plan</li> <li>4. ISO 22301: Business Continuity Management System (BCMS) certification</li> <li>5. Redundancy</li> </ol>	➤
2.3 Reputation risk due to community's lack of understanding on health issue arising from radio waves	Problem of understanding of the concerned communities on health issues arising from radio waves nearby the Company's base stations, which may lead to resistance to the construction and/or appeals to related parties. The company cannot expand the installation of transmission equipment or build new base stations.	<ol style="list-style-type: none"> <li>1. Company's reputation</li> <li>2. Unachieved operations</li> </ol>	<ol style="list-style-type: none"> <li>1. Setting up specific teams to communicate to the relevant communities before construction, in line with NBTC's regulations.</li> <li>2. Analyze the relationship between the company and community for reduce a resistance and plan to make understanding to encourage their confidence if they still have concerned on safety issues.</li> <li>3. The company will prepare construction blueprints of the base stations have been certified by professional civil engineers to meet the standards of the Engineering Institute of Thailand strictly.</li> </ol>	➤

## Operational Risks

Risk Issues	Description of Risk	Potential Impact	Mitigation Plan/Progress	Risk Movement from 2016
2.4 Risk arising from the Company's failure to respond in a timely manner to customers' needs/issues via various social media platforms	In response to customers' behaviors of connecting with various social media platforms, the sharing of product and service information, the handling of enquiries and the resolution of complaints must be performed in a prompt manner with the accurate information. This is to prevent the spread out misleading information, which may have a negative impact on the Company's corporate image	<ol style="list-style-type: none"> <li>1. Company's reputation</li> <li>2. Confidence of customer, partner and stakeholder</li> </ol>	<ol style="list-style-type: none"> <li>1. Implement tools to monitor related information in various social media</li> <li>2. Appoint specialized team to monitor and respond to customer needs specifically via online channels.</li> </ol>	➤➤
2.5 Risk from intensive competition in the market	The entering of new players such as OTT (Over the Top Players) who possess their own global platforms and lower cost of operation i.e. LINE has significantly change the competition environment in Thailand's telecommunication market in various areas e.g. maintain existing customer base and new customer acquisition strategies, after sales service etc.	<ol style="list-style-type: none"> <li>1. Financial revenue</li> <li>2. Market share</li> <li>3. Company's reputation</li> </ol>	<ol style="list-style-type: none"> <li>1. Enhances the quality of after sales service to maintain customer base and attract new customers especially Serenade privileges program. The company has defined strategies to develop benefits of Serenade in many areas e.g. expand Serenade Club, focus on Serenade device offering, expand privileges in the Top-Trend partners such as dining, traveling experience, entertainments etc.</li> <li>2. Develops strategies for maintain customer base and offer products and services to meet the needs of customers by use Advanced Analytics Tools</li> </ol>	New risk 2017

## Operational risks

Risk Issues	Description of Risk	Potential Impact	Mitigation Plan/Progress	Risk Movement from 2016
2.6 Risk from changing in customers' behavior and technology advancement	The change and advancement of technologies especially digital technology in currently which it make new product launch by incumbent provider with new business model. It's also changes the customers' behavior in the use of products and services because customers have extensive choices for new services in the digital world. Therefore, causes to the company has to adapt and develop their business plans to accommodate the changing of technologies and new innovations to maintain existing customer bases, make revenue from new channel and keep long-term sustainability.	1. Financial revenue 2. Market share 3. Company's reputation	1. Defines key strategies both in short-term and long-term to respond with changing of customers' behavior and technologies. 2. Enhances full digital customer services system e.g. produce engagement with customer via fully online, building AI/Chatbot capability, implement Robotic Process Automation for customer services. 3. Bundling product and service offerings of mobile, fixed broadband and digital content in new model which provides value added to reduce complexity and cost savings for customers. And also adds benefits to attract new customers. 4. Building capability to gain customer insights with Data Analytics to manage products and services offering to customer according to their needs at the right value. 5. Develops network infrastructure, customer services systems and support systems as new technology mandatory. 6. Growing corporate business and content business e.g. expand IoT business, create and drive complete Cloud Business Ecosystem. 7. Organizational structure transformation and develop competency of employees to support key strategies of the company.	New and emerging risk 2017
2.7 Risk from talent acquisition for digital transformations	According to the rapidly change of technology and customers' behaviors. The telecommunication providers need to improve their service capabilities to quickly respond to customer needs. If the company cannot develop skills or capabilities in a timely, it will impact to the Company's business advantage in currently businesses and new businesses in the future.	1. Company's reputation 2. Market share	1. Recruits employees with new ability that meet the needs of the company including offer scholarship to potential employees for talent development applied with new business in the future. 2. Collaborates with world-class expertise institutions to build a foundation, develop knowledge and prepare for digital business of employees including implement succession plan and culture transformation to be ready for digital era.	New and emerging risk 2017

GRI 102-15 , GRI 417-2 , GRI 417-3