

Part 1

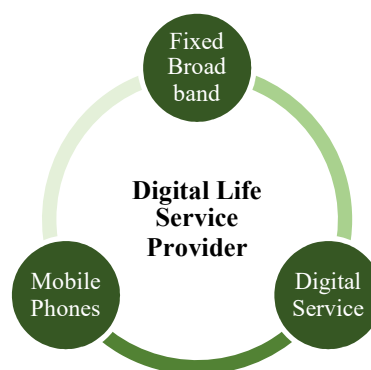
Business

1. Business Overview

AIS has operated as a telecommunications service provider for 29 years, starting in 1990 as a concessionaire endowed with the ability to utilize state frequencies under the 25-year Built-Transfer-Operate (BTO) agreement. In 2010, the National Broadcast and Telecommunications Commission (NBTC) was established and began permitting frequency licenses in 2012, marking a major turning point for the telecommunications industry in Thailand. The licensing scheme conforms to the global telecommunication regulation and supports fair competition as well as the development of new technologies such as 3G and 4G that better served the needs of consumers.

AIS remains committed to its vision of being “To become the most-admired Digital Life Service Provider in Thailand” and is looking to enhance daily living via digital technologies through the following missions:

- Deliver superior products and services to enrich people's daily lives and to improve enterprise capabilities and efficiency.
- Enhance customer intimacy through the best customer experience.
- Drive intrapreneurship and employees' professionalism, and promote a positive, lively and agile work culture.
- Build win-win growth to all stakeholders.



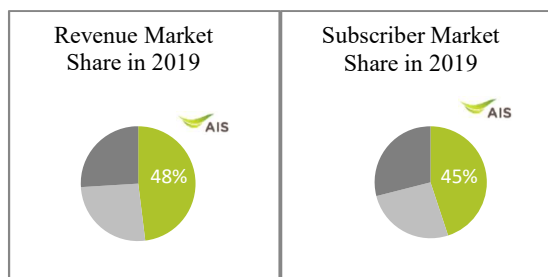
AIS, the Digital Life Service Provider

Today, we are a “Digital Life Service Provider” operating three core businesses, namely

1. Mobile Phone Services: AIS provides both postpaid service (monthly subscription) and prepaid service (top-up) as well as international calls and roaming with network partners in over 229 nations worldwide.
2. Fixed Broadband Services: Started in April 2018, the service provides high-speed home internet utilizing FTTx fiber optics as well as VDO platform.
3. Digital Services: Building on mobile phone and high-speed internet services, digital services are targeted to be a new and value-added revenue source in the medium and long term in anticipation of a change in consumer behaviors and technology.

In 2019, AIS's total assets were valued at Baht 289,669 million with a market capitalization of Baht 633,287 million, ranked 4th on the Stock Exchange of Thailand.

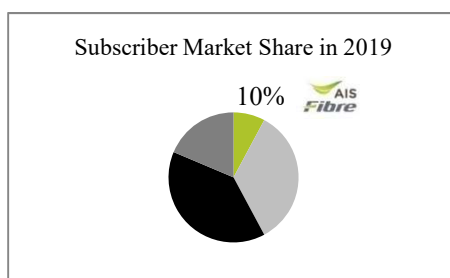
Leading the Mobile Market



“Other operators are DTAC and True Move”

At the end of 2019, AIS remained the largest mobile operator in Thailand, with a revenue market share of 48%, and a total of 42 million subscribers nationwide. The mobile phone services revenue still accounting for more than 71% of total revenue. In the past year, revenue in this area continued to grow by 4.2% YoY. With the mobile spectrum currently available to AIS, we are able to provide quality network services, including 4G, 3G and 2G technology, to over 98% of the population. Over the past year, AIS began preparing to enter the 5G era by carrying out research, and development of 5G technologies with its allies and partners, testing its technology network, technical capability, processes and service and utilization across different industries.

Growing in the Fixed Broadband Market



“Other fixed broadband operators are TRUE, TOT and 3BB”

AIS started its fixed broadband business under the “AIS Fibre” brand, with the goal of creating a new source of revenue by leveraging the already established fibre network and the subscriber base from the Company’s mobile business. Currently, AIS Fibre is available in 57 cities, covering 7 million households. AIS Fibre has penetrated the market using its strength in providing FTTH technology to connect households to the internet and is ready to support existing ADSL users wishing to upgrade to higher quality technology and the superior speed of up to 1 Gbps. Fixed broadband revenue in 2019, therefore, grew by 29% YoY, accounting for 3.7% of total service revenue. Currently, the total number of subscribers is 1,037,600, accounting for more than 10% of the fixed broadband subscriber market share.

Building on Core Businesses with Digital Services

The third core business of AIS is Digital Services, which involves the development of services using digital technology in a variety of formats, including networks, service platforms and solutions, in order to create digital services for both our corporate and general customers. This is achieved via cooperation with our partners and the development of an integrated business ecosystem in which we grow and succeed together. AIS is currently focused on 5 main

areas of business. These are VDO Platform, Business Cloud, Mobile Money, Internet of Things (IoT), and other platform services. Our digital services are an important propeller enabling AIS to access new sources of revenue in the future in addition to current mobile internet charges. It also allows AIS to be an integrated player via the convergence of products and services from our three core businesses.

Operating Under Licenses Regulated by the NBTC

The majority of AIS's businesses, particularly the mobile phone and fixed broadband businesses, operate under the regulation of the National Broadcast and Telecom Commission (NBTC), which is the regulatory authority formed in accordance with the Frequency Allocation Act 2010. AIS, through a subsidiary, was granted a telecommunications business license, as well as 2100, 1800 and 900MHz spectrum licenses. Moreover, AIS is partnering with TOT to utilize TOT's 2100MHz spectrum. This resulted in AIS having a total of 2x60MHz bandwidth for operations at the end of 2018. AIS is mandated to pay the license fee, Universal Service Obligation (USO) fees, and numbering fees to the NBTC amounting to around 4% of service revenue per year.

Key development towards sustainable growth

Product and Services to meet digital lifestyle

2017

- Joined **Netflix** to offer exclusive content through smartphone and tablets.
- Expanded collaboration in **digital content** with multiple partners to exceed 100 channels serving the customer through AIS PLAY and AIS PLAYBOX platform.
- Developed "**My AIS App**", an application that empowers customers to access all services available at the AIS Shop 24 hours.
- Collaborated with **Samsung pay** to develop payment platform through AIS mPAY MasterCard. Allowing Samsung
- Collaborated with **Microsoft** Corporation improving network stability, securities, and reduce cost of cross-country cloud access.
- AIS Fibre introduced Power 4, first **convergence package** featuring high-speed fiber internet, data SIM, entertainment content and SuperWiFi for 24-hour internet connection.
- Introduced **AIS mPay Promptpay**, enables customers to transfer and receive money via Promptpay service including QR code payment service.

2018

- Launched "**NU Mobile**", a new fully online SIM, to serve digital users.
- Acquired **CS Loxinfo (CSL)** to serve end-to-end digital solutions such as cloud service, data center, and managed service including consultancy for enterprise.
- Invested in **Rabbit Line Pay (RLP)** joint venture, holding 33.33% of equity stake, to provide a domestic mobile payment platform.
- Collaborated with **Singtel** and **Kasikorn Bank**, to provide payment platform across the country through "VIA" by **Singtel Dash** and **Rabbit LINE Pay**.
- Collaborated with RoboWealth developing **Odini**, an application that use AI (Artificial intelligent) helps manage customer's portfolio and automatically decide which fund to invest. Siam Commercial bank is also collaborated to provide payment service through E-Wallet platform.

2019

- Enhanced **High-Speed Internet** through 5 strategies focusing on top speed, coverage, E-Sports support, self-speed management and adjustment of the need for every customer.
- Launched **AIS Insurance Service**, an online insurance brokering service that allows indication of travel information and coverage duration provided by an AIS affiliate (**ADD**) authorized by the Office of the Insurance Commission.
- Renewed business focus of **CS Loxinfo** and changed its name to **CSL** while introducing the 3Ss strategy; 1. Data Center & Cloud Solutions 2. Managed Services 3. System Integration for every enterprise business operation.
- Launched **AIS eBiz Shop**, an online storefront for **AIS Business** products and services.
- Cooperated with **Singtel** to expand electronic payment service to Japan
- Introduced the **NB-IoT Motor Tracker** solution to the auto insurance business with Thai Vivat Plc. using it to active and deactivate automobiles and calculate insurance premiums on actual usage.
- Cooperated with **Sansiri** and **Kamnanchul Farm** to build Smart Barns controlled by the iFarm system, which manages temperature, soil moisture and PM2.5 as well as displays readings on a dashboard in real-time.

Network innovation

2017

- Launched **Narrow Band IoT Live** to support Thailand 4.0 and Smart City development.
- Developed and test **4G Massive MIMO 32T 32R** technology in FDD ready for 5G.
- Collaborated with **Qualcomm** Technology, Inc. on developing LTE Advanced (LTE-A) Technology. The initial test results showed 30% increase in downlink and 50% increase in downlink.
- Launched 4.5G utilizing **256QAM, 4x4 MIMO** and **Carrier Aggregation** technology, AIS managed to maximize internet speed to as fast as 550 Mbps.
- Launched “**AIS NEXT G**” combining the frequency efficiency of AIS 4G Advanced and AIS SuperWIFI using Multipath TCP Technology that enabling 1 Gbps internet speed experience

2018

- Officially signed a **roaming agreement with TOT** on 2x15 MHz of 2100MHz spectrum, serving the proliferation of 4G and 3G data usage.
- **Acquired 2x5 MHz of 1800MHz** spectrum license resulting in 15-30% speed increase for 4G data users.
- Expanded **AIS NEXT G** network and feature to be compatible with both Android and IOS. Also, Next G network can render 1Gbps of mobile speed.
- Collaborated with **Nokia, Huawei, and ZTE** to test 5G technology on 26.5-27.5GHz spectrum.
- Expanded NB-IoT network and platform across the country by collaborating with partners from various industries such as Property Perfect and Samsung to develop Smart Home solutions.

2019

- Tested **5G** technology at Samyan Mid Town to learn about 5G in a practical context testing out 3D hologram technology, long distance 3D image projection and communication, 5G

VDO Calls, 5G Remote Controlled Vehicles, 5G Connected Drones and 5G Robotics among others.

- Launched a test of **5G in the Central Region** and ran a practical test, opening the trial to developers, educational institutes and partners in the Northeast interested in taking part in 5G technology.
- Signed an MOU with **Huawei, Nokia** and **ZTE** to jointly study, exchange knowledge and experiment with 5G technology in terms of responding to industrial developments and bettering the lives of consumers.
- Secured a license in the **700Mhz frequency** band for 723-733Mhz as well as 778-788Mhz (2 x 10Mhz in width) for 15 years from reception worth a total 17.584 million Baht.

Expanding opportunities through social and environment development

2017

- Launched “**AIS DC**”, A new knowledge center for the public, content developers and startups. AIS DC offers API (Application Programming Interface) to benefit application developers before launching to the market.
- Opened the **AIS Contact Development & Training Arena** to enhance the call center capacity by reserving 8-10 million customer lines a month as well to improve the competency of all call center staff.
- Granted the “TGO Guidance of the **Carbon Footprint** for Organizations” certification from Thailand Greenhouse Gas Management Organization (A public organization) for the accuracy and efficiency in the greenhouse gas data collected from our business activities.

2018

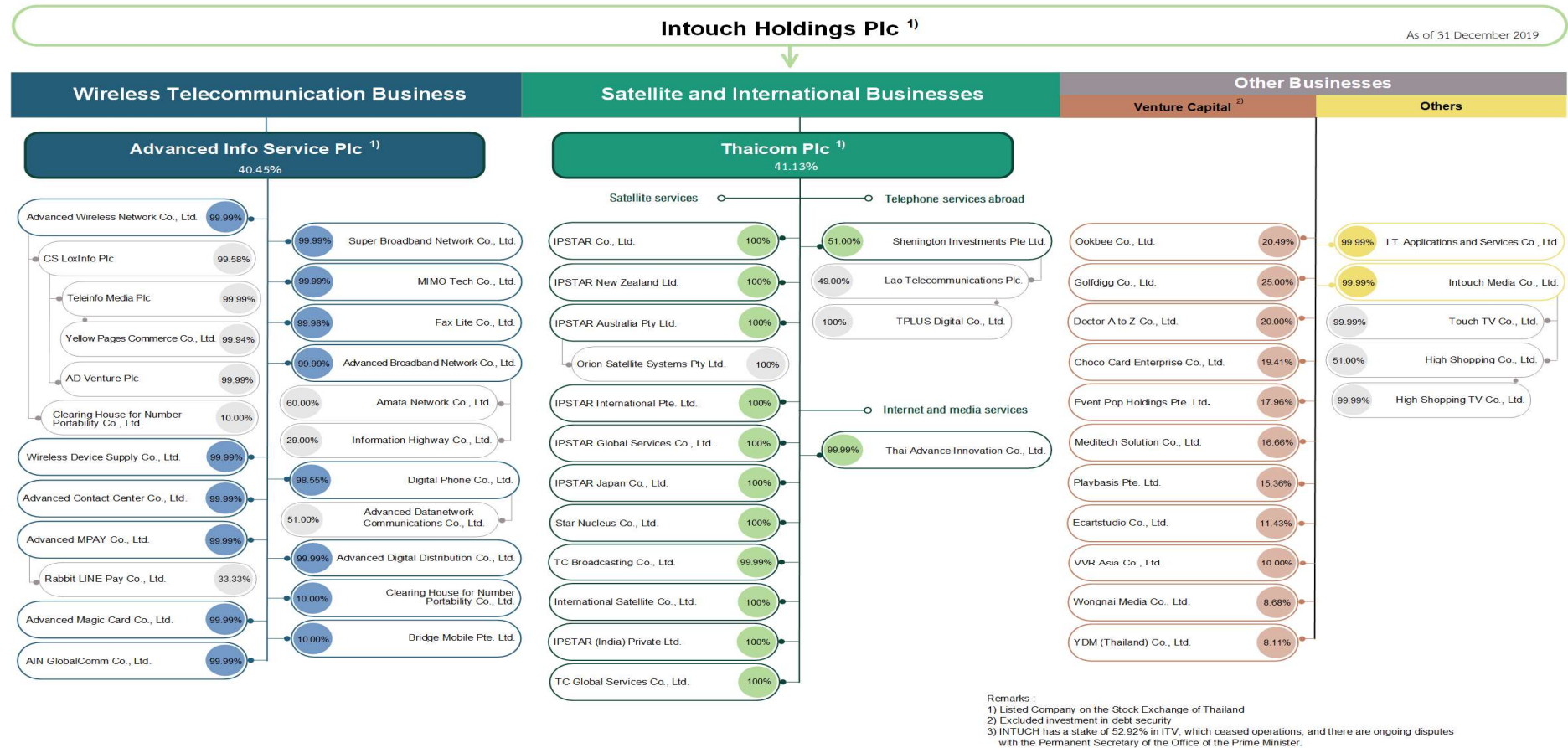
- Collaborated with **Khon kaen university** for the research and development of IoT technology to support Smart City, Health, Environment, and Transportation.
- Develop and provide Free high speed WiFi services for **25 airports** across the country.
- Collaborated with CIRBOX, leading company in Smart vending machine business, to integrate IoT system and VMS (Vending machine system) for laundering and vending business management.
- Applied Smart Terminal Technology to improve **transportation system in Eastern Economic Corridor (EEC)**. With U-Tapao application, Utapao Airport can now manage many information digitally such as using Video Analytics technology for Face recognition and Heat map analytics.

2019

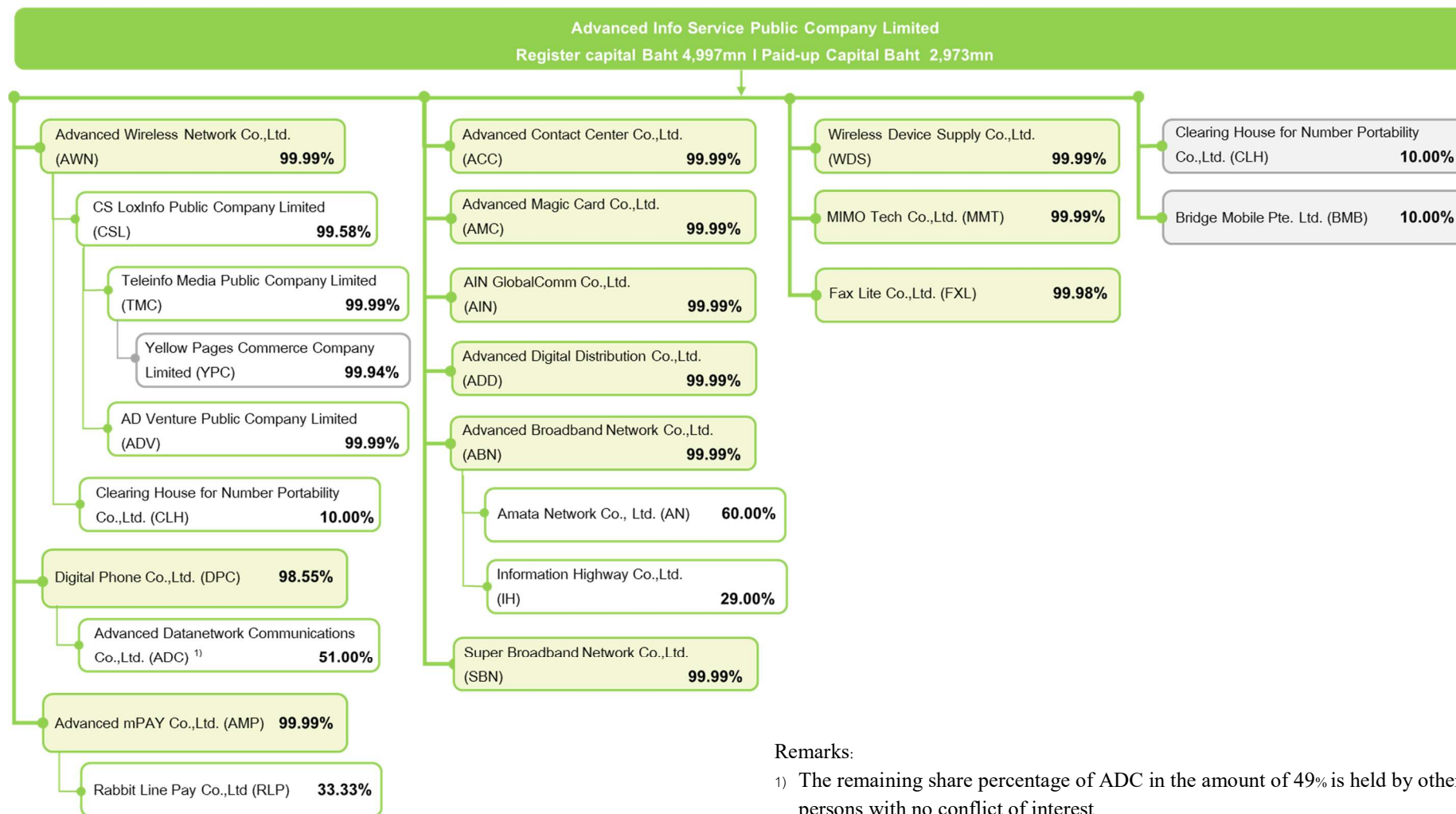
- Established the **Kaset Farm Suk** technology learning center to serve as a source of knowledge on Smart Farmer approaches and use of the IoT or Intelligent Farm (iFarm) platform to more efficiently, accurately and conveniently manage farms.
- Worked with public and private partners to organize “**Green Paholyothin**”, a campaign on receiving E-Waste that pushed for the separation and proper disposal of E-Waste.
- Organized the “**Aun Jai CYBER**” activity, inviting teachers from over 150 schools to receive training to enhance all 8 skills of their DQ (Digital Quotient).

Investment structure of AIS group

Investment structure of the mother company (INTUCH) as of 31 December 2019



Investment structure of AIS group 31 December 2019



Award and Recognition for 2019

Awards for Organization and Branding

- **Thailand's Most Admired Brand & Company** award from BrandAge as a brand that won consumer's heart and is the most trusted brand.
- **The Most Prominent Telecommunication Brand in the World** from Brand Finance, a world-renown strategic branding and brand value consultancy firm
- **No.1 Brand Thailand 2019** award from Marketeer as the most popular brand in Mobile Operator sector.
- **Outstanding Brand** award from the Annual Asia CEO Summit & Award Ceremony 2019 as an outstanding organization in Asia.
- **Best Practice Awards 2019** in digital innovation development for Thai society from "Serving the Country with One Million Virtues Project" awarded by "For Thai Society Foundation."
- **The Best Accelerator and Incubator Program and People Choice Award**, for supporting startups that aim at economic and cultural development, awarded by ASEAN Rice Bowl StartUp Awards 2018.
- **Best Companies to Work for in Asia 2019** award from HR Asia Magazine of Business Media International (Malaysia)
- Honorable award " **Organization of The Year 2019** in Information Technology and Communication from "Serving the Country with One Million Virtues Project"
- **The Best of DRIVE AWARD 2019** as the leader in driving the country economy in Telecommunication and " **DRIVE AWARD 2019 Excellence Technology**" for the third consecutive years as the best organization in technological business.

Awards for Products, Services and Marketing

- **Customer Relationship Excellence Awards 2019** for the five consecutive years held by Asia Pacific Customer Service Consortium (APCSC). There were more than 100 Asia Pacific companies participated.
- **Outstanding Organization that support disabled Employees** in 2019, for the fourth consecutive years since 2016, awarded by Department of Disabled's Quality of Life Promotion.
- **Fastest Growing VMware Cloud Provider of the Year 2018** award for the second consecutive year in VMware Partner Executive Event as an enterprise-trusted Cloud service provider.
- **Thailand IOT Services Provider of the Year** award from Thailand Excellence Awards 2019 held by Frost & Sullivan.
- **Corporate insurance broker that support outstanding insurance policies for the people** from Office of Insurance (OIC).
- **Most Engaged Official Account** award as an Official Account that generated the most engagement and was the 'Most used sponsored stickers', as its branding sticker was most popular in Thai market.

Awards for Societal and Sustainability

- Selected to be a member of "Dow Jones Sustainability Indices" in both World Index and Emerging Market Index as of 2019
- Awarded with "Thailand Sustainability Investment" (THSI) as of 2019 among the listed company with a market capitalization of more than Bt 100,000 million for the fifth consecutive years.

2. Nature of Businesses

Revenue Structure by Service Type

	2017		2018		2019*	
	Million Bt	Percent	Million Bt	Percent	Million Bt	Percent
1. Service revenue	132,947	84.29	144,005	84.78	154,010	83.96
1.1 Mobile phone business revenue	122,979	77.97	124,601	73.36	130,062	70.90
1.2 Fixed broadband business revenue	3,128	1.98	4,436	2.61	5,722	3.12
1.3 Other services revenue	2,476	1.57	4,391	2.59	4,670	2.55
1.4 Interconnection (IC) and equipment rental revenue	4,364	2.77	10,576	6.23	13,557	7.39
2. SIM and device sales revenue	24,775	15.71	25,851	15.22	29,422	16.04
Total revenue	157,722	100.00	169,856	100.00	183,432	100.00

*The operating performance shown in 2019 does not include the effect of TFRS15 for comparison purposes.

Today, AIS is operating 3 core businesses, the key products and services of which can be summarized as follows:

Mobile Business	Fixed Broadband Business	Digital Service Business
<ul style="list-style-type: none"> • 4G/3G/2G mobile network service • Prepaid and postpaid service • Mobile phone sales • Roaming and international calls 	<ul style="list-style-type: none"> • Fibre broadband for households and SMEs 	<ul style="list-style-type: none"> • Video Platform • Enterprise cloud • Mobile money • Internet of Things • Other platforms

1. Mobile Business

AIS operates 4G/3G/2G mobile services, deployed on spectrum for telecommunications business licenses granted by the NBTC. AIS currently has a total of 2x60MHz spectrum capacity, which consists of 2100, 1800 and 900MHz bands. Also, in 2019, AIS has applied for the allocation of 700MHz spectrum and has the right to obtain license to use them starting from last quarter of 2020 unless otherwise stated by the NBTC. AIS's mobile network covers 98% of the population and provides more than 100,000 AIS Super Wi-Fi access points. AIS also applied Wi-Fi 6, the next generation standard technology that improve connectivity, speed, and reduce interference, together with the development of AIS NEXT G or combination of Wi-Fi and 4G.

AIS provides mobile phone calling and internet services in both prepaid and postpaid formats. At present, AIS has a total customer base of 42 million subscribers nationwide, with 9.1 million of these being postpaid subscribers and another 32.9 prepaid subscribers. For this year, AIS issue postpaid package, NEXT G FLEXI SPEED, allow customer to configure the speed according to the preferred data usage. Moreover, AIS provide "READY2FLY" additional roaming internet package to serve existing customers without having to buy a new SIM for their need of internet usage across the country. Additional information about these products can be found at www.ais.co.th



2. Fixed Broadband Business

AIS has been offering fixed broadband home services under the AIS Fibre brand in 2015, providing services using fibre optic technology. Thanks to investing in fibre optic networks that build upon our current networks used for mobile phone services, AIS Fibre has been able to expand its network quickly, currently covering more than 57 provinces nationwide and serving 1 million subscribers. This year, AIS Fiber worked to ensure the quality of service beyond just speed and stability with the focus to deliver good coverage throughout every room of the home by presenting the SUPER MESH x 3 package, built around MESH WiFi equipment that creates a network throughout the abode. AIS Fiber also devoted attention to E-Sports clients, providing them the Dual Bandwidth option, allowing for separation between home internet usage and gaming usage for improved speed, stability and latency. Other than high speed internet, AIS Fibre offers a world-class content packages allowing customers to view content such as movies, sports and other entertainment via the AIS PLAYBOX. We also aim to offer convergence products combining a wide variety of services in a single package, including home internet, mobile internet, world-class content viewing, and unlimited AIS Super Wi-Fi usage. Additional details can be found here www.ais.co.th/fibre



3. Digital Service Business

In 2019, AIS continued to develop its digital services in order to generate new sources of revenue and to reach our aim of becoming a complete digital life service provider. To achieve this, an emphasis was placed on working with partners who have expertise in each type of service. AIS's digital service business focuses on 5 main areas as follows:

- **Video Platform**

AIS has launched its TV and video distribution services, including various types of entertainment, such as movies, TV dramas, music, karaoke, and games, via the AIS PLAY application, available on both mobile phones and tablets. The service is also available on AIS

PLAYBOX via the AIS Fibre service. Additionally, in 2019, AIS increased interest in E-Sport by offer worldwide E-sport streaming channel via AIS PLAY and AISPLAYBOX.

AIS joined with partners to provide OTT services offering a wide variety of content, such as movies, Hollywood series, HOOQ, Netflix, Korean TV programs and drama series via ViU, and world-class NBA basketball, as well as Free TV channels and digital and satellite channels. These are available in the form of both live broadcast and video-on-demand and can be accessed via both the AIS PLAY and PLAYBOX platforms. Details of the service can be found on our website at <http://www.ais.co.th/aisplay/> and <http://www.ais.co.th/playbox/>



- Enterprise Cloud

AIS together with CS Loxinfo, a subsidiary which was rebranded as CSL, aims to create a One-Stop ICT Service with the 3S focuses, comprised of **S-Solutions** that serve Data Centers, the Cloud and ICT, **S-Services** providing complete managed service and **S-System Integration** to support the needs of enterprise customers facing digital transformation by providing products and services in cooperation with relevant world-class partners.

CSL has 9 locations of data center providing services to clients across all regions in Thailand. The data centers have certification of international standard including **ISO 9001, ISO/IEC 20000-1, ISO/IEC 27001, ISO 22301, ISO 50001, ISO 14001 and CSA Star**. CSL is a Carrier Neutral Provider, which allows it to serve as a hub for Internet Exchange, under the name CSL Thai-IX. CSL Thai-IX serves both domestic and international businesses such as IP Transit providers, OTT and various Content service providers, allowing for an efficient and cost-effective connectivity and data exchange compared to overseas connections.

Apart from working with world-class Cloud service providers, AIS and CSL also develop Hybrid Cloud Solutions to serve the need of multiple type of cloud services, from Private Cloud and Public Cloud to On-Premises Cloud solutions. More details on AIS cloud and CSL can be found at <http://business.ais.co.th/cloud/index.html> and <https://www.csl.co.th/csl/>



- Mobile Money

In supporting the national policy on the development of National E-Payment infrastructure towards achieving a cashless society, this year, AIS joined with both domestic and international partners to launch cross border mobile payment, allowing customers travelling abroad to transact based on local currencies, effectively eliminating concerns over exchange rates or the need to carry cash during travels.

AIS also provides the mobile money service platform for both corporate customers via mPay (B2B) and for general customers via a joint venture company, Rabbit LINE Pay (B2C). mPay provides a comprehensive mobile payment platform for corporates who seek to have a mobile electronic wallet offered to their customers, while bypassing the hassle operation of mobile payment system and operating license. More details can be found at www.ais.co.th/mPAY/gateway



• IoT or Internet of Things

In building the IoT services, AIS focused on creating an IoT ecosystem covering equipment, networks, platforms, business solutions and developer communities from public and private alliances formed through the AIS IoT Alliance Program (AIAP). This responds to the rising growth of large, medium and small enterprises transitioning to the digital era and looking to incorporate IoT capabilities into their businesses such as finance, logistics, real estate and Smart Cities.

In 2019, AIS expanded its NB-IoT network nationwide to capture the opportunity of IoT service. The number of IoT devices connected via the AIS network for businesses grew to over 750,000. The IoT development involves partnering for new business models as well as business applications. An example of our IoT commercial service this year was the solution that AIS worked with Thai Vivat Insurance Company to build the NB-IoT Motor Tracker, a usage based insurance (UBI) solution.

As the development of IoT into business is relatively new, AIS also places importance on supporting and jointly developing IoT innovations with different organizations. In the past year, AIS joined the IoT Association of Thailand and Sri Patum University to organize Thai IoT International Conference, Thailand's first national academic gathering on IoT. We also setup AIS Playgrounds in various universities to serve as incubation centers allowing for development on real environment. Through our continued development of the IoT ecosystem, AIS was awarded the 2019 Thailand IoT Services Provider of the Year recognition by Frost & Sullivan, and the Best Practices Award in IoT for 2 consecutive years. More information about our IoT services can be found on our website at <http://business.ais.co.th/iot>



- **Other Platforms**
Digital Marketing

In cooperation with AD Venture and Teleinfo Media (an affiliate of AIS' subsidiary CS Loxinfo), we utilize AD Venture's online advertisement capabilities, and leverage upon AIS 42 million customer base to provide digital marketing solutions for corporate customers in enhancing their accessibility to consumers in digital era. Our digital marketing platform includes location base SMS platform that allows for advertising of targeted areas, and Thailand Ads Network, or THAN, a collection of ad space on Thailand's 100 most popular websites offering a major digital marketing tool to clients. The digital marketing solutions comprises of digital content creation, website & mobile application development, social media management, digital advertising media management and turnkey marketing campaign solutions.



Small and Medium Enterprises (SME)

AIS serves small and medium enterprises (SMEs) segment by providing targeted products and services i.e. mobile phones & packages for business communication, online business solution, AIS Fiber broadband services, IoT & software solutions.

AIS also provides privileges specific to SMEs under the AIS Biz Up program, which comprises benefits and special features customized to match the lifestyles of business owners and employees of SMEs. The privileges include products and services from AIS and its partners, discounts from leading businesses, free trials or special pricing and business knowledge sharing for SMEs. More information about our SME solutions can be found at <http://business.ais.co.th/sme> and about Biz Up at <https://business.ais.co.th/bizup>



Distribution and Sale Channels

AIS distribution channels are divided into 4 main categories as follows:



1. AIS Shop: These are service centers managed by AIS and selected high potential distributors, in total of 191 branches nationwide. AIS Shops offer the most comprehensive range of products, services, and after sales services when compared with other channels. AIS Shops strategically locate in densely populated urban areas and have focus on maintaining a positive image of AIS products and its services.

2. Distributors: AIS partners with a number of distributors targeting at different customer segments throughout the country. Our distributors include “AIS Telewiz” which operates under AIS brand and provides service at more than 431 locations in key city areas. “AIS Buddy” distribution partners provide access to district and sub-district areas through more than 1,179 branches. AIS also distributes our products and services through other retail outlets and modern trade retailers, such as Jaymart, Computer System, Ibis Plus Network, and Tesco Lotus.

3. Direct Sales: AIS also distributes through the AIS Direct Sales team, with an emphasis on postpaid customers, targeting more effectively to selected customer segments, for example, via sales booths or through activities organized in target group areas. AIS supports the direct sales team with the “AIS Easy App”, in sales and registration as well as services to customers more effectively.

4. Online Channels: Focused on promoting customer self-service, the online channels include AIS website, AIS Online Store, myAIS application, kiosks, as well as transactions made through various electronic channels, such as ATM, USSD, Chatbot, IVR and social media, etc.

Customer Relationship Management (CRM)

Aiming to provide leading digital services, we deliver the service concept of being the “No. 1 service with heart, for a digital lifestyle”. Our service approach focuses on attentive detail and high level of care combining technology with a distinctive human touch in order to deliver speed, convenience, personal data security, self-service and personalization. We work to excel in best customer experience by differentiating our services and enhances digital technology into service operations. Our CRM can be categorized into the following 5 key areas:

1. Leverage digital technologies into customer service, including:

1.1 “Full-E” service covers a full range of services, including checking usage and outstanding payment, billing and payment, as well as receipt, all of which are available through the myAIS application. The application helps easing customer issues, such as losing a bill, missing payment, inconvenient payment station and checking usage record. The “Full-E” service comprises the following features.

- eBills: provides billing information and SMS alert for payment.

- ePay: enables online payment via bank applications, “Rabbit LINE Pay” electronic wallet, and direct debit via banks’ credit cards.
- eReceipt: provides viewing of historical record of receipts up to three months.

1.2 Use of Face Recognition to enhanced protection of personal data for customers’ new registration through sales channels as well as embed in self service capability in order to validate customer identity.

1.3 “Ask Aunjai”, the virtual agent developed through a combination of Artificial Intelligence (AI), Chatbot technology and a Smart Knowledge Base, is able to respond 24 hours to queries from customers online and via social media such as on the AIS website, its Facebook page and on the myAIS application. Such AI Chatbot is also developed with the focus on replicating human touch in corresponding to customers. It also handles end-to-end solution from handling complaints, issue analysis, suggestion and action through the Digital Self Service system, AIS point redemption, present monthly AIS Privileges and even recommend films and music on AIS Play.

2. “AIS Privileges” is another channel for managing customer relations in cooperation between AIS and its partners. This year, AIS continued to match its customers lifestyles in every dimension with the “7 Wonderful Moments with AIS Privileges” program, which included Coffee Time at famed local cafes across the country at a 10-50% discount, Dining Time offering discounts up to 50% at popular restaurants, Family Time providing privileges for the entire family, Entertaining Time with theater viewings for only 80 Baht, Shopping Time providing privileges at major retailers, Traveling Time enhancing trips and Lucky Time 4 Points, a raffle with AIS. So far, AIS has acquired 28,000 partners offering privileges nationwide and records 17 million uses of such privileges a year. Customers can also use the AIS Points they collect from service usage to receive discounts on LINE Stickers, join raffles for special prizes, discounts on phone packages, internet and even new mobile phones. At present, there are 13 million numbers signed up for the AIS Points program with some 28 million redemptions a year.

3. “AIS Serenade” is a privileges program for the top and longest users of AIS services and was created to retain long term customers. Serenade has been active for 15 years and focuses on 3 factors in particular, 1. Attention to customer demands, 2. Acquiring partners to respond to new demands and 3. Use of technology in all dimensions. The service concept of the program is “The Ultimate Life Experience” and through continual study of customers, we segment our privileges program into 4 groups, 1. Special Experience (Serenade Club, Personal Assistance, Parking Services, Privileges at the Airport), 2. Digital Life (discounts on smartphones, gadgets), 3. Energy and Inspiration (Gen C athletes, business oriented inspiration rallies) and 4. New Experience (travel and dining). The groupings have helped AIS better address the needs of its 5.2 million Serenade customers.

4. In our striving for the best customer experience, we build-in analysis and insight of consumer behaviors into our marketing tools, an approach to build value for our customers called customer value management (CVM). Such analytic approach allows us to customize product and service presentation to each customer and increase consumer satisfaction.

5. AIS observes customer satisfaction across numerous platforms, including telephone ratings, surveys in our service shops, as well as questionnaires arranged by contracted external agency. These ratings refer to the quality of services on offer from AIS, whether in our shops, at our dealerships, or through our automated service machines, as well as measuring the likelihood of our customers

suggesting AIS and our services to others. These data are used to constantly develop every facet of the services we provide. From our survey, the customer satisfaction levels are as follows:

	2019	2018
Human touch point satisfaction scores	84 percent	83 percent
Non-human touch point satisfaction scores	72 percent	72 percent

Industry Competition in 2019 and Outlook for 2020

Subscriber market shares in mobile and fixed broadband businesses



Mobile phone business growth due to continued increase in 4G usage

The year 2019 saw continued growth in the mobile market overall. Total industry revenue for 2019 was approximately Baht 330 billion, with a growth of 4%. This compares to the previous year's growth of 2%, and was also higher than the 2019 GDP growth of 2.5%. Currently, there are more than 92 million subscribers in the market, an increase of 2%, with mobile phone penetration rates for Thailand at approximately 140% of the population. While the overall industry prepaid users remained about the same, the number of postpaid users grew by about 9%, due mostly to the popularity of postpaid package with mobile phone discount campaigns and data plan that is more suitable for 4G usage. As a result, the proportion of postpaid numbers per total industry numbers grew from 24% last year to 26% this year, and the total number of 4G customers accounted for about 66% of the total market, up from below 60% in 2018.

This increased 4G usage, coupled with price competition and package price adjustments throughout the previous year, has resulted in the ARPU for the entire industry at the end of 2019 growing. Competition was mainly around data price plan with some improvement from the previous year. However, there remained to be offering of fixed-speed unlimited data plans. Bundling attractive discounts on mobile handset with data plan have remained a key strategy for operators in drawing customers looking to purchase handsets in conjunction with postpaid packages.

Spectrum allocation as a starting point in preparation for 5G technology

In June of 2019, the NBTC (National Broadcasting and Telecommunications Commission) awarded 700MHz spectrum licenses to AIS, DTAC and TRUE. Each of the three service providers was allocated 2x10MHz bandwidth, providing a starting point for their preparations for soon-to-come 5G technology over the next 1-2 years. Usage of the allocated spectrums can begin with the first payment installment around the end of 2020, unless otherwise determined by the NBTC. The 700MHz spectrum is a standard low-band frequency for 5G, which has outstanding features in terms of coverage, thus allowing service providers to offer 5G services with excellent coverage. As a result of the aforementioned allocations, the payment period for 900MHz licenses has been extended until 2025.

Fixed broadband market upgrades speed to 200-300Mbps

Throughout 2019, the fixed broadband market continued to see revenue growth with the customer base for fixed broadband connectivity growing from 9.2 million households in 2018 to more than 10 million households in 2019, representing an 11% growth this past year. This means that the number of households in Thailand with fixed broadband connectivity has grown from 43% in 2018 to approximately 47% in 2019 as the demand for internet connectivity in residential areas continues to increase.

Nonetheless, total industry revenue saw a growth of only 2%, with a total value of approximately Baht 58 billion due to intense price competition. Throughout the past year, all service providers continued to offer steep half-price discounts in order to prevent existing customers from canceling or changing service providers, as well as to attract new customers. Discount campaigns were also utilized in an effort to appeal to customers from other service providers. Although an entry industry price remained in a range of Baht 500-600 per month, service providers continued to upgrade internet speeds from 50 Mbps to 200 Mbps towards the end of the year. Besides, service providers began offering packages with speeds of 1 Gbps for more affordable prices at Baht 800-1,000. As a result, industry ARPU saw a decrease from previous year. Service providers with other available services apart from high-speed internet also continued to offer convergence packages to customers, combining a variety of services into the same package, including high-speed internet, internet SIMs for mobile phones, and content, with the aim of generating long-term quality customers.

Industry Trends in 2020

Investment in 5G technology to create new business models and revenue sources

In December of 2019, the NBTC officially announced the rules and procedures for awarding the license of frequency spectra for mobile telecommunications businesses in the 700 MHz, 1800 MHz, 2600 MHz and 26 GHz spectrum. These procedures contain details of each type of spectrum license, starting price, payment terms and conditions, etc. Each spectrum comes with a 15-year license period and the auction will be held on February 16, 2020. Mobile service providers have been actively preparing for 5G technology, in collaboration with equipment vendors, universities and partners in different industrial sectors, through research and development, testing, and trial of potential commercial use cases. Business alliances are also being sought out for the creation of new business models that will support growth across a variety of industries. For consumer market, 5G technology is designed support high-definition video streaming services, cloud gaming, and the provision of interactive content driven by augmented reality/virtual reality (AR/VR). For the business market, there are potential new services that address various industries, including the manufacturing, service, and agricultural sectors, with services such as automated manufacturing process, remote control machinery, smart home solutions, etc. In the early stage, the expansion of 5G network is expected in the Eastern Economic Corridor (EEC) area as well as in the key smart cities area. The 5G supported devices will also start to be available to Thai market.

Mobile telecom market continues to grow with rising 4G usage

Growth in mobile market is expected to continue in tandem with rising demand for data usage due to the continued popularity of social media, games, and video streaming as urban areas and communities continue to expand. While industry mobile user base is expected to have low growth, 4G usage will be the key growth driving factor with a current 4G adoption ratio at about 66% of industry customer base, up from 59% in 2018. However, the economic outlook could pressure

consumer spending and hence industry competition in 2020 is likely to continue with offers of value-for-money price plans to attract customers and marketing campaigns offering mobile phone discounts. The trend of prepaid to postpaid migration is also likely to continue as service providers focus on the expansion of postpaid subscriber bases due to higher ARPU with postpaid than with prepaid base.

Fixed broadband market expands, supported by wireless home internet services

The continued rise of urbanization rates will boost consumer demand for high-speed internet services. This, along with the fact that the ratio of households with fixed broadband connectivity still has the potential to increase from its current level of 47%, means that all service providers must continue to focus on expansion of coverage for home internet services. While major services continue to be provided via FTTx technology with speeds of up to 1 Gbps, investment must be considered in areas where market demand and investment worth are clear. In certain suburban or rural areas that may be more remote and that have limitations in regard to the costs of fiber cables, 5G technology can help to provide additional coverage, enabling broadband access via the 5G network, also known as WTTx, or Fixed Wireless Access services. This means the use of 5G routers for home internet signal reception instead of the rather limited fiber cables, which will result in service providers being better able to manage network installation costs to suit the specific areas and needs of consumers.

Business direction over three years

Technology developments have accelerated industrial changes by bringing about new ways of providing products and services. Within a couple years, telecommunication sector will start to see commercial use of technologies such as 3D media, virtual reality, hologram or real-time broadcast, and many more that enriches customers' experiences. 5G technology is the most recent development that offers such capabilities and enables the aforementioned to be widely used and commercialized. As much as technology advancement alters products and services offered as well as how they are consumed, it also poses risk to business disruption due to emerging new business models and how to service customers. New digital players, such as Over the Top (OTT) operators, arises and are taking deeper customer engagement above and beyond simple connectivity. Telecommunication tends to become more of a wagon to attain service rather than the end service itself.

AIS aims to reinforce its goal of being 'Digital Life Service Provider' by enhancing its core businesses; mobile services, broadband services, and digital solutions, and strive for innovative offerings that enrich Thai's lives and support business operations and build Thailand competitiveness. AIS sees technology as a competitive edge to strengthen capabilities and drive sustainable growth in Thailand.

Reinforce core business and maintain leadership with quality service and operational excellence

Thailand has constantly been having a growing mobile internet usage resulting from the rise of affordable smartphones and digitalized platforms that are playing an increasingly important role in Thai people's life. Telecommunication network advancement will be compulsory as technologies become more interwoven into people everyday lives. As a leading mobile service provider in Thailand, AIS is driven to continue investing to advance mobile network and service capability including its current 4G service and the future 5G service through research and development with partners. It is expected that 4G service will continue running in parallel with 5G over the next two to three years. AIS will take lead in bringing richer media and entertainment and serving at a more personalized level through enhanced data analytics. AIS aims to maintain its industry's leadership with service and operational excellence as well as network quality

Progressing into 5G technology, AIS will strive to cultivate technology knowledge and use cases through studies and partnering with industry's experts in order to enhance 5G ecosystem in Thailand. As 5G prime features include speed, ultra-low latency, massive connectivity, it will bring about many new services for both consumers and corporate uses such as 3D video, work and play in the cloud, augmented reality, industry automation, mission critical application, smart city/home/car. For enterprises, AIS aim to facilitate the use of 5G technology in industries-specific process automation and customer data management. AIS intend to use its network expertise and knowledge to address industry-specific needs as well as innovating revenue-generating models.

Grow access to home broadband leveraging both fixed and mobile infrastructure

Quality home broadband has become more essential in Thai households as digital services developments has increased its importance. There has been a growing demand for ultra-high resolution streaming of video, contents and games. The needs are pushing for a faster, more reliable, and higher-capacity network. AIS aims to continue expanding its broadband network availability into urbanizing areas leveraging on its currently available mobile network fibre infrastructure. With the capability of 5G technology, home broadband can benefit from deploying 5G as Fixed Wireless Access (FWA), which enable connectivity in areas where fiber is prohibitively expensive or where there are geographic limitations in building and maintaining the infrastructure. FWA can reduce the setup cost and time as it does not require physical fiber optics layout as last mile, but rather connected via mbile equipment.

With growing access to home, AIS aims to provide more services to family in the future being home entertainment, home security and automation, etc. Consumers tend to be more connected relentlessly and seamlessly on multiple devices. AIS believes in providing consistent service availability and quality both indoor and outdoor for customers and their families. Today, AIS continue to reach out to the existing mobile subscriber base to offer home broadband offering bundled package of mobile, home internet, AIS PLAY, which offers video contents and OTT programs.

Drive new value added digital services to customer's changing lifestyle and strengthen enterprise's competencies

While connectivity has become a necessity, platforms has become the focus of user utility. The importance will no longer be on the means to connect, but rather the destination or the services that customers need to reach. AIS aim to expand its offerings and be customer's Digital Life Service with added new services that are personalized, real-time and predictive including services like video, mobile money, IoT, Cloud, and other services such as game and insurance. By building strong partnership, increasing convenience and platform usability, AIS targets to grow its digital service user base. Revenue model will range from subscription base, fee base to advertising model.

AIS also aims to play a major role in addressing the growing needs of enterprise's digital transformation. AIS will reinforce its offerings advancements, including improving its cloud service capability, encouraging partnership with leading ICT providers, and expanding its data centers capacity to capture the potential demand for cloud service. The services will allow enterprises to optimize cost efficiency, ensure system reliability and security, and strengthen their capability, which will complement to Thailand's competitive advantage in economic development.

Integrating technology to improve business processes and uplift people development

Driving toward digital age, AIS aims to utilize technology to reinforce its competitiveness in offerings with 1) data analytics, 2) efficient RPA processes, and 3) skilled human resources. Firstly,

Customer Value Management (CVM) and customer relationship will be improved with data management and customers will be reached with suitable offerings in a more personalized channel. AIS will not only be able to offer the right product mix with added services and platforms that AIS already has, but also be able to personalized the bundles meeting the increasingly diversified needs. Secondly, AIS will integrate technologies such as RPA, Artificial Intelligence (AI), and Machine Learning (ML) to enhance its customer services and internal processes. Automation can help fill the gap given its efficiency, on-demand availability, and reduce human errors. Moreover, technology integration will allow AIS to achieve cost optimization. Lastly, People has been one of the key focuses in achieving long-term and sustainable success especially amid the radical changing competitive landscape. AIS encourages its employees to be active with growth mindset and open to rapid changes. AIS Innovation Center and digital learning platform, which gives on-demand and variety digital courses, have been introduced to shape personnel knowledge and skills. Reinforcing such programs, AIS' people will be ready to employ technology and innovation in their work process and; therefore, collectively move toward its goal of being 'Digital Life Service Provider'.

Procurement of Products and Services

Spectrum

Currently, AIS operates mobile business with a total spectrum deployment of 2x70MHz, 2x55MHz of which is under the licenses to operate granted by the NBTC while another 2x15MHz is under the agreement with the TOT. Advanced Wireless Network Co.Ltd. or AWN, a subsidiary, was granted the spectrum licenses as detail provided in topic 4. Assets used in operations, Part 1 Page 33.

Network equipment procurement

AIS has "Multi-vendor policy" to avoid relying solely on one supplier. Equipment manufacturers and AIS can align plans for equipment and service development for the optimum solutions and mitigate risks in procurement and delivery of equipment within timeline.

In selecting suppliers, AIS appoints committees to evaluate and find the most suitable options. Many factors are taken in to account, such as price, technical factor and manufacturers' development plan, to make sure that AIS can operate sustainably.

We selected key network equipment from the leading international vendors including Nokia, Huawei and ZTE. Other parts in networks are supplied by CISCO, Juniper and etc.

Handset, other equipment, and digital service procurement

For handset trading, AIS offers varieties of handset in terms of quality and price ranges. The majority are iPhone, Samsung, Oppo, Huawei, and VIVO. Equipment used in Fixed Broadband service are largely procured from Nokia and Huawei. In rendering digital services as well as enterprises business, AIS has partnered with businesses from various industries.

Environmental policy in procurement process

AIS is determined to operate sustainably from its service and product procurement through its operations as well as proper management of waste disposal to mitigate impacts on relevant stakeholders.

- **Service and Product Procurement:** AIS maintains guidelines for its trade partners, contractors and service providers so that it may conduct all business in adherence to environmental

regulations and in an eco-friendly manner. AIS also undertakes environmental risk assessments of its vendors to enhance the strength of its operational ecosystem towards sustainability.

More information can be found at <http://sustainability.ais.co.th/en/supply-chain-management>

- **Waste Termination Operations:** With a determination to mitigate its impacts on the environment, AIS implements the following environmentally sustainable strategies:

1) Promoting energy efficiency and increasing its proportion of renewable energy use to reduce carbon emissions resulting from the significant energy requirement of maintaining a 24-hour network and data center. AIS also incorporates digital technologies that reduce its need for paper and travel such as having customers replace mailed bills with electronic bills.

2) Reducing and recycling waste from its operations and promoting all Thais appropriately dispose of electronic waste.

More information available at <http://sustainability.ais.co.th/en/report/sustainability-report>

The core objective of the environmental policy declared at AIS is environmental sustainability and comprises assessment, control, management and monitoring to mitigate environmental impacts as well as adherence with environmental laws and regulations.

The environmental policy can be downloaded at <http://sustainability.ais.co.th/storage/sustainability-priorities/emissions/ais-environmental-policy-th-2018.pdf>

Work under progress

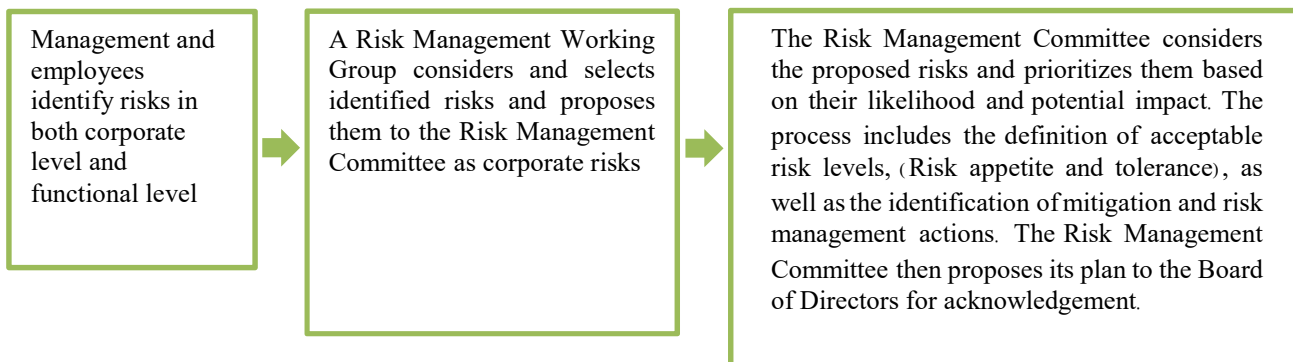
-None-

3. Risk factors

To identify the risks that have the potential to impact AIS's business objectives including AIS's group companies, goals and opportunities, AIS considers the following factors:

1. Internal and external factors such as human resources, changes in technology and regulations, customer's behaviors as well as the business environment
2. Extreme events or ongoing conditions that have adverse effects on the Company's work practices or business competitiveness including floods, fires or other natural disasters
3. Past events, current exposures and future trends which may effect to AIS's and its group business operation
4. Significant movements in the economy, society and environment in both short term and long term
5. The causes of such potentially adverse events which may effect to AIS's and its group business operation
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



Significant risk factors that arise from the changing environment can be classified as follows

Significant risk factors

Risks from Industry Regulation and Government Policies

1. Risk from changes in government policies, rules, regulations and orders of regulators

AIS operates under the supervision of government agencies such as NBTC, the organization responsible for regulating the operators under granted license in the industry and with the legal authority to issue rules, regulations and orders to regulate the licensees. The rules, regulations, and orders issued in the future, such as those that relate to fixing the tariff structure and service fees, or issuing rules and measures for consumer protection, have the potential to affect the Company's business operations, reduce the Company's ability to generate profit and/or increase the cost of services.

For any work directly related to the government agencies, AIS has a dedicated unit which is responsible for regularly monitoring the issuance and change of regulations and then reporting on such changes to the management and coordinating with the relevant departments to ensure they are informed promptly and ready to respond. The unit's role includes performing as an intermediary to coordinate with government agencies and ensuring that it is given all the necessary information on the business impact of its regulations. Through this unit, the Company also has the opportunity to make comments or suggestions and/or raise our concerns or opposition to the enactment of the laws, rules, regulations and/or orders in the event that they are deemed likely to have a serious impact on the Company's operations, or to have been unlawfully conducted. Furthermore, the Company, as a service provider which is a direct stakeholder, would be invited to provide our opinion and comments on the drafts of laws, rules, regulations and/or orders which will be issued for enforcement in the future.

The Potential Impact of Risks	Risk Movement from 2018
Business operations, revenue and cost, company's reputation	No significant changes

2. Risks arising from the Disputes with Government Agencies

In the past, AIS operated the business of providing telecommunications services under license or concession agreements with State Enterprises. This required the transfer of assets in which the Company had invested for use in its business operations to the government contracting parties as well as the implementation of a revenue sharing model at the specified rate. Formerly, AIS had many disputes arising from disagreements in the interpretation of the Agreements such as amount of revenue to be shared. Furthermore, in some cases, NBTC issues announcements, regulations or orders which impacts to conducting business operations or have concerns for compliance and to an extent that it could affect to business operation or operating income of the company and/or increase the service costs. In many cases, AIS exercised our right under the law to sue the NBTC in a court of law in order to contest the legitimacy of the various actions undertaken by the NBTC.

(Information and additional details are shown under the topic Report on Important Disputes)

AIS has established a department that is directly responsible for coordinating with government agencies so that the Company as a contract party can conduct its business correctly and completely in compliance with the relevant contract. In the event of a conflict issue, the Company shall enter into negotiations with the aim of seeking a prompt settlement. In the event that the issue cannot be resolved through negotiation, such dispute will be taken to the dispute resolution process by the arbitral tribunal

as specified in the Agreement. In addition, the matter will be taken before a court which has the jurisdiction to consider a final decision.

The Potential Impact of Risks	Risk Movement from 2018
Financial status and company's reputation	No significant changes

Operational Risks

1. Risk to information security and threats from cyber-attacks

The Company has rapidly developed a variety of products and services to serve customers' needs and increase their convenience. While technology is essential in developing and improving these products and services, the application of advanced technology may also come with a risk of information technology. Such risks result from 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 cyber-attacks.

- If an information security system is insufficient or incomplete, it can have a serious impact on the company, especially if important data including personal data of our customers are compromised.
- The threat from cyber-attacks, e.g. DDoS attacks, website phishing, malware/viruses, etc, may cause severe business disruption.

To ensure the effectiveness of the Company's information security, AIS regularly reviews and revises the security policy of the Company's IT system in the following ways:

- Apply suitable international standards and align with the Cybersecurity Act and Personal Data Protection Act.
- Extend and expand security appliance tools to cover significant systems
- Enhance information security measures, e.g., by reviewing the access control procedure; maintaining a closed working environment; and building IT awareness across the entire Company.
- Enhance staff competencies related to Cybersecurity

The Potential Impact of Risks	Risk Movement from 2018
Financial revenue, business or IT systems disruption and company's reputation	Emerging risk

2. Risk from intensive competition in the market

Faced with the intense competition of the telecommunication industry, operators continue to expand their networks to satisfy customer needs, including the provision of mobile packages bundled with various mobile devices, especially introducing unlimited data packages to attract customers. However, this causes aggressive price competition. AIS is incorporating the following steps into its risk management plan:

- Strive to gain innovation leadership in providing products and services.
- Introduce Fixed Mobile Convergence (FMC) products by continually expanding the Company's Fixed Broadband network to enhance network quality and coverage.
- Enhance the quality of after sales services to maintain the customer base and attract new customers, especially through the Serenade Privileges program. The Company has defined strategies to develop the benefits of Serenade in many areas, e.g., expanding the Serenade Club, focusing on Serenade device offerings, expanding the privileges from the Top-Trend partners, such as dining, traveling, and entertainment.

- Develops strategies for maintaining the customer base and offering products and services to meet the needs of customers by using Advanced Analytics Tools.

The Potential Impact of Risks	Risk Movement from 2018
Financial revenue, market share and company's reputation	Increasing

3. Risk from changes in customer behavior and technological developments

Changes and advances in technology, especially digital technology, enable service providers to launch new products with new business model. These developments also change consumer behavior, because customers have more choices from the new services in the digital world. This, therefore, forces the Company to adapt and develop its business plan to accommodate the changing technologies and new innovations in order to maintain its existing customer base, generate revenue from new channels, and ensure long-term sustainability. AIS is incorporating the following steps into its risk management plan:

- Define the key strategies, both short-term and long-term, to respond to the changing customer behavior and technologies
- Enhance the digital customer service system, e.g., increase engagement with customers via a fully online system, build AI/Chatbot capabilities, and implement Robotic Process Automation for customer services.
- Bundle product and service offerings of mobile, fixed broadband and digital content in a new model which provides added value to reduce complexity and create cost savings for customers, while also attracting new customers.
- Build the capability of gaining customer insights with Data Analytics to provide customers with product and service offerings according to their needs and at the right price.
- Develop the network infrastructure, customer service systems, and support systems by incorporating new technology such as cloud technology.
- Grow the corporate business and content business, e.g., by expanding the IoT business and creating and driving a complete Cloud Business Ecosystem.
- Transform the organizational structure and develop the competency of employees to support the key strategies of the Company.

The Potential Impact of Risks	Risk Movement from 2018
Financial revenue, market share and company's reputation	Emerging risk

4. Risk from equip adaptability for digital capacity

Due to the rapidly changing technology and customer behaviors, telecommunication service providers need to improve their service capabilities in order to be able to respond quickly to customer needs. If the Company cannot develop the necessary skills or capabilities in a timely manner, it will impact to the Company's business advantage both in its current businesses and in new businesses in the future. AIS is incorporating the following steps into its risk management plan:

- Recruit employees with new abilities that meet the needs of the Company including development of necessary skills or capabilities that can be applied in new businesses in the future.
- Collaborate with world-class institutions that have specific expertise to lay the foundations for developing the requisite knowledge and prepare high-potential employees for the digital business

age including the implementation of a succession plan and a culture transformation to ensure readiness for the emerging risk in the digital era.

The Potential Impact of Risks	Risk Movement from 2018
Company's reputation and market share	No significant changes

5. Supply Chain Risk

The Company needs to purchase network and base station equipment including maintenance services from a small number of vendors/suppliers which have the relevant technology. If those vendors/suppliers are unable to deliver the products or services, it may affect our business. AIS is incorporating the following steps into its risk management plan:

- Apply a multi-vendor purchasing policy for major equipment and services
- Establish an approved vendor/supplier list of vendors/suppliers that pass the Company's quality standards (Multi-vendor)
- Control the equipment and spare parts inventory at a suitable level in order to avoid shortages

The Potential Impact of Risks	Risk Movement from 2018
Financial revenue, business or IT system disruption, and company's reputation	No significant changes

6. Economic and Political Risk

Change in economic and political defines both business risk and opportunity for The Company. This will cause adverse effect to demand and supply in economic system and effect to purchasing power of our customers. However, the communication via voice or data service, now is the part of daily life of people and the price are affordable. Impact from economic and political to The Company still in the acceptable level.

The Potential Impact of Risks	Risk Movement from 2018
Cost and/or revenue	No significant changes

7. Risk from major network failure or interruption to important systems

In the event of any uncontrollable disaster, natural disaster, or any crisis event which affects the Company, potentially leading to the interruption of primary operating systems and business activities, AIS applies the Business Continuity Management (BCM) policy at both the enterprise and departmental level. The Company also conducts an Annual Review and carries out exercises to practice and test the Business Continuity Plan. In addition, AIS received international ISO 22301:2012 Business Continuity Management System certification in recognition of the completion and implementation of the Company's Business Continuity Management System to cope with crisis situations and maintain the organization's sustainable development.

The Potential Impact of Risks	Risk Movement from 2018
Company's Reputation and Unachieved operations	No significant changes

8. Climate Change Risk

Climate change is one of the global issues that has the potential impact on our business operation, infrastructure and supply chain. The Company as a telecommunication service provider and electronic distributor foresee the essential of dealing with this issue, we adopt our infrastructure design to ensure

the continuity and efficiency of our services delivered to our customers and reduce the waste from business operations that will impact to environment e.g. Apply the standard EIA-222C to our telecom tower to support higher wind speed than Thailand historical records, Raise the height of base station refer to the level of heavy flooding in Year 2011. The company has project implementation of the electronic collecting waste method, and also take accountability to manage our processes those have the consequent impact to climate to comply with our sustainability development guideline and international standard practices in 2020 project proposed as follows:

- Manage of electronic waste from business operations, evaluating and sorting electronic condition to recycling process
- Set greenhouse gas (GHG) emissions target from both direct and indirect
- Increase the portion of usage from renewable energy e.g. solar energy

The Potential Impact of Risks	Risk Movement from 2018
Business disruption, maintenance cost and company's reputation	Emerging risk

Financial Risks

1. Risks from exchange rate fluctuation

The Company is exposed to the risks of foreign exchange rate fluctuation due to International Roaming revenues and expenditures being in foreign currencies and parts of the network expenditures also being in foreign currencies. AIS is incorporating the following steps into its risk management plan:

- Use Forward Contracts which specify that the exchange rate at the time of the contract date will apply to the future delivery of the contracted services
- Use existing foreign currency deposits (Natural Hedge) to make payments for goods and services in foreign currencies

The Potential Impact of Risks	Risk Movement from 2018
Cost and/or revenue	No significant changes

4. Assets used in operations

The total assets used in operation of AIS business can be divided into two main groups:

- 1) Fixed assets such as network equipment, service shops, office building, and land
- 2) License to operate telecommunication service such as spectrum license and other licenses to operate telecommunication business. The details of significant licenses are as at 31 December 2019 follow;

Fixed assets of AIS and subsidiaries

Type of Assets	Estimated Useful Life (years)	Unit: Million Baht
Tools and equipment for providing telecommunication network and fixed broadband services	2 - 20	219,957
Computer Software	5 - 10	11,487
Network under construction and installation for rendering telecommunication and fixed broadband services	-	4,814
Other fixed assets		5,655
Total		241,913
<i>Less</i> accumulate depreciation/ amortization		(116,403)
Net Book value		125,510

The total value of the core fixed assets of AIS and its subsidiaries include the financial leases in furniture, fixtures and office equipment, tools, equipment and vehicles is Baht 114 million.

Beside the fixed assets above, AIS and its subsidiaries have an agreement on office rental which can be summarized as follows:

Type of assets	Ownership	Monthly rental rate (Baht million)	Obligation
9 offices space rental in Bangkok and space rental of service shops in 28 provinces*	1-3 years lease agreement	Approximately 70 million	None

Note: * Chiang Mai, Surat Thani, Nakhon Sawan, Nakhon Ratchasima, Nakhon Pathom, Phitsanulok, Songkla, Chon Buri, Ayutthaya, Rayong, Phuket, Udon Thani, Khon Kaen, Ubonratchathani, Samut prakan, Chachoengsao, Chiang Rai, Lampang, Phrae, Tak, Surin, Roi Ed, Mahasarakham, Mukdahan, Prajuabkirkhan, Prachin Buri, Saraburi and Bangkok

License to operate telecommunication service

AIS and its subsidiaries operates 2G, 3G, and 4G network service and other telecommunication services under the spectrum license granted from the NBTC which are Telecommunication business license type 1, Telecommunication business license type 2, Telecommunication business license type 3, Internet Service Provider Type 1, International Internet Gateway and Internet Exchange License Type 2 with its own network. All licenses have the term and conditions stipulated by the NBTC as shown at https://www.nbt.go.th/Business/commu/telecom/telecom_licensing.aspx

Moreover, the company has Electronic card business license and Electronic payment service license to operate mobile money services, including prepaid card sales on prepaid systems and electronic wallet.

Summary of Telecommunication Service License granted by NBTC

Spectrum license	License Fee	Effective date	Grant Period	Expiration
The right to use 2.1 GHz spectrum <ul style="list-style-type: none"> Bandwidth of 2x15MHz (1950-1965MHz paired with 2140-2155MHz) Used for 3G/4G technology Provide telecommunication network covering at least 50% of population within 2 years and at least 80% of population within 4 years 	Pay for the spectrum license according to the rate and payment condition specified by the NBTC.	7 Dec 2012	15 years	6 Dec 2027
The right to use 900 MHz spectrum <ul style="list-style-type: none"> Bandwidth of 2x10MHz (895-905MHz paired with 940-900MHz) Used for 2G/3G/4G technology Provide telecommunication network covering at least 50% of population within 4 years and at least 80% of population within 8 years and width of 2x10 MHz 		1 Jul 2016	15 years	30 Jun 2031
The right to use 1800 MHz spectrum <ul style="list-style-type: none"> Bandwidth of 2x15MHz (1725-1740MHz paired with 1820-1835MHz) Used for 4G technology Provide telecommunication network covering at least 40% of population within 4 years and at least 50% of population within 8 years 		26 Nov 2015	18 years	15 Sep 2033
The right to use 1800 MHz spectrum <ul style="list-style-type: none"> Bandwidth of 2x5 MHz (1740-1745MHz paired with 1835-1840MHz) Used for 4G technology Provide telecommunication network covering at least 40% of population within 4 years and at least 50% of population within 8 years 		24 Sep 2018	15 years	15 Sep 2033
The right to use 700 MHz spectrum for telecommunications service <ul style="list-style-type: none"> Bandwidth of 2x10 MHz (723-733 MHz paired with 778-788 MHz) Used for 4G/5G technology 		Tentative in 4Q20, to be announced by NBTC	15 years	Tentative in 2035, to be announced by NBTC

Commercial Agreement with TOT

1. Roaming Agreement

Company	Significant terms and condition	Benefit	Agreement Period	Expiration
AWN	Provide roaming service on TOT's 2100 MHz spectrum to AWN with terms and conditions as specified in the agreement.	Pay the monthly roaming fee to TOT at the rate per subscriber as specified in the agreement	7 years 5 months	3 Aug 2025

2. Telecommunication Equipment Rental Agreement

Company	Significant terms and condition	Benefit	Agreement Period	Expiration
SBN	Provide equipment rental to TOT, which allows TOT to provide mobile service on TOT's 2100 MHz spectrum	Receive rental revenue from TOT which is subjected to the rate and usage as specified in the agreement	7 years 5 months	3 Aug 2025

Policy to invest in subsidiaries and associate companies

AIS currently focuses on telecom service business only. We thereby invest in subsidiaries and other companies for the purpose of supporting our main business or operating other related services which is beneficial to our business. AIS has appointed directors and executives as our representative in those companies for the purpose of shareholder's benefit and value maximization. The meeting of board of directors of those companies is scheduled to convene at least on quarterly basis. The shareholders' meeting is scheduled on annual basis.

5. Legal Disputes

In the past, AIS operates mobile telecommunication service using 900MHz spectrum in accordance with the Concession Agreement for Cellular Mobile Phone Operation (“Concession Agreement 900”) with TOT for the period of 25 years (1 October 1990 to 30 September 2015). Similarly, DPC, subsidiary of AIS also operates telecommunication service using 1800MHz spectrum subject to the Digital PCN (Personal Communication Network) 1800 Agreement (“PCN Agreement 1800”) with CAT from 19 November 1996 to 15 September 2013. Throughout the period of the two agreements, AIS and DPC had the obligations to invest and provide equipment used for the provision of service and such equipment shall be transferred to TOT and CAT while AIS and DPC agreed to share a specified percentage of revenue generated from the service to TOT and CAT.

After the establishment of National Telecommunication Commission of Thailand (“NTC”), subjected to the Act on Organization to Assign Radio Frequency and to Regulate the Broadcasting and Telecommunications Services B.E.2543 (year 2000), and subsequently transitioned into the National Broadcasting and Telecommunication Commission (“NBTC”), subjected to the revision of the same law B.E.2553 (year 2010) (“the Act on Organization to Assign Radio Frequency”), the mobile telecommunication service and other telecommunication service by AIS and Affiliate were regulated by NTC and NBTC respectively.

As a result, AIS and DPC have the important legal disputes subject to Concession Agreement 900, PCN Agreement 1800 and the Act on Organization to Assign Radio Frequency as follows:

5.1 Legal Disputes under Concession Agreement 900

5.1.1	Remuneration from the Telecommunication Network Interconnection Agreement subject to the notification from National Telecommunication Commission of Thailand (“NTC”)
Litigant	AIS and TOT
Submitted date and Tribunal	9 March 2011: Thai Arbitration Institute 7 November 2018: The Central Administrative Court 11 November 2018: The Central Administrative Court 3 August 2019: The Central Administrative Court
Dispute Topic	<u>AIS</u> On 9 March 2011, AIS submitted a dispute to the Thai Arbitration Institute claiming that TOT has no right to demand that AIS pay any interconnection charges under the Concession Agreement of the 17th - 20th concession year. AIS claimed that TOT has no right to demand that AIS not deduct the interconnection charges which AIS has to pay to other operators before sharing the revenue to TOT. The disputed amount equals Baht 17,803 million plus interest at the rate of 1.25 percent per month. On 23 August, 2016, AIS submitted a dispute to arbitration claiming that TOT has no right to claim for compensation from income from interconnection charges during the 23th to 25th year, amounting in total to Baht 8,367.90 million with interest at the rate of 1.25 percent per month.

5.1.1	Remuneration from the Telecommunication Network Interconnection Agreement subject to the notification from National Telecommunication Commission of Thailand (“NTC”)
Litigant	AIS and TOT
Dispute Topic	<p><u>TOT</u></p> <p>On 29 July 2014, TOT raised a dispute demanding that AIS make an additional payment for the 21st – 22nd concession year of Baht 9,984 million plus interest at the rate of 1.25 percent per month.</p>
Result of case	<p>On 17 August 2018, the arbitration tribunal decided to dismiss the dispute by TOT demanding AIS to make a payment from interconnection charges during the 17th to 20th concession year. And for 21st year and 22nd concession year, was to dismiss the dispute of TOT and decided for TOT to compensate from the dispute which AIS overpaid in the amount of Baht 110.08 million within 60 days from the date of decision.</p> <p>On 30 April 2019, the arbitration tribunal decided for AIS to make a payment from interconnection charges during the 23rd to 25th concession year in net amount of 224.42 million Baht with interest. AIS agreed to pay TOT by bringing revenue share from interconnection charges which AIS overpaid from the dispute during 17th to 20th concession year and for 21st and 22nd concession year in the amount of 111 million Baht with interest to deduct from the amount which AIS had to pay TOT. Therefore, the remaining amount was 144 million Baht. AIS already deposited such amount to the deposit office since TOT denied the direct receipt of payment.</p>
Status of Case	On 7 and 11 November 2018, and 3 August 2019 TOT submitted the case to Central Administrative Court for the revocation of arbitration tribunal's decision for the 17th to 20th concession year, and 21st to 22nd and 23rd -25th concession year. The case is currently under the consideration of Central Administrative Court.

5.1.2	Revenue share from international direct dialing service
Litigant	AIS and TOT
Submitted date and Tribunal	<p>16 January 2013: Thai Arbitration Institute</p> <p>17 July 2017: The Central Administrative Court</p>
Dispute Topic	AIS submitted a dispute to the Thai Arbitration Institute requesting that TOT pay revenue sharing of for international direct dial service according to the Amendment No. 3 and 4, including interest, of the Concession Agreement between AIS and TOT. AIS claims that TOT has been in default of payment for the period of November 2008 - September 2012 and owes the total amount of Baht 1,528 million plus interest as stipulated in the Concession Agreement.
Result of case	On 1 May, 2017, the Thai Arbitration Center decided that TOT should pay the revenue sharing from international direct dial service during November 2008 – September 2012 in the total amount of Baht 1,354 million including interest at the rate of 7.5 percent per annum, should the payment is delayed more than 60 days from the date of the decision. And TOT should pay the revenue sharing from October 2012 onwards until the end of obligation in accordance with the Concession Agreement. On 17 July 2017 TOT submitted the petition to the Central Administrative Court for the revocation of such decision.

5.1.2	Revenue share from international direct dialing service
Litigant	AIS and TOT
Status of Case	On 23 May 2019, AIS submitted request to Central Administrative Court to enforce subject to the arbitration tribunal's decision which ordered TOT to make a payment from revenue share of International Direct Dial Service during November 2008 to September 2011. The case is under consideration of Central Administrative Court.

5.1.3	Transfer of telecommunication towers subject to Concession Agreement
Litigant	AIS and TOT
Submitted date and Tribunal	21 July 2014: The Thai Arbitration Institute
Dispute Topic	AIS submitted the dispute to arbitration tribunal for the decision that the 13,198 telecommunication towers were not the assets to be transferred of ownership to TOT in accordance with concession agreement and also to claim for refund of revenue share from tower usage fees in the amount of Baht 516.31 million.
Result of case	On 26 September, 2019 the arbitration tribunal dismissed the dispute as per request of AIS and TOT since both parties settled the dispute in accordance with the Settlement of Dispute and Service regarding the Telecommunication Tower dated 4 September, 2019.
Status of Case	The dispute was settled since AIS and TOT agreed to the Settlement of Dispute and Service regarding the Telecommunication Tower dated 4 September, 2019. AWN agreed to use telecommunication tower from TOT and TOT agreed to use the site and maintenance service from AWN for the period of 10 years from January 2019 onwards.

5.1.4	Porting of subscribers from 900 MHz system to 3G 2100 MHz by AWN
Litigant	TOT and AIS
Submitted date and Tribunal	25 September 2014: The Thai Arbitration Institute 15 May 2019 The Central Administrative Court
Dispute Topic	TOT submitted a dispute to the arbitration tribunal to decide for the suspension of AIS' porting out of subscribers to AWN by the method of pressing *988* on the basis that such action was the breach of concession agreement and claimed for the damages in the amount of Baht 9,126 million (from May 2013 to June 2014) with interest rate of 7.5 per annum. On 25 March 2016, TOT submitted the request to amend the amount of damages by calculating from May 2013 until the expiration date of 900 concession agreement (30 September 2015) in the amount of Baht 32,813 million.
Result of case	On 14 February 2019, the arbitration tribunal decided to dismiss all of TOT's disputes with the reason that AIS did not breach 900 concession agreement as claimed.
Status of Case	On 15 May 2019, TOT submitted for revocation of decision by arbitration tribunal. This case is under consideration of Central Administrative Court.

5.1.5	Request for additional remuneration regarding the 6th and 7th amendments to the Concession Agreement (“Concession Agreement”).
Litigant	TOT and AIS
Submitted date and Tribunal	30 September 2015: The Thai Arbitration Institute
Dispute Topic	AIS submitted a dispute to the Arbitration tribunal regarding the 6th and 7th amendments to the Concession Agreement. AIS claimed that the said amendments bind AIS and TOT. AIS also claims that AIS has no obligation to pay for the additional remuneration in the amount of Baht 72,036 million, in line with TOT's claim that such Amendments has been caused TOT to receive lower remuneration than the rate as specified in the Concession Agreement.
Result of case	On 29 January 2020 AIS received the award of the Arbitral Tribunal by majority vote ordering AIS to make additional payment of Baht 31,076 million plus an interest of 1.25% per month commencing from 30 November 2015. AIS disagrees with such award. Therefore, AIS are proceeding to submit the case to the Central Administrative Court for the revocation of Arbitral Tribunal's award.
Status of Case	AIS is proceeding to submit the case to Central Administrative Court within 90 days after receiving the award.

5.1.6	Rental fees for site for installation of towers and telecommunication equipment under the Telecommunication Service Concession Agreement (“Concession Agreement”).
Litigant	TOT and AIS
Submitted date Tribunal	30 September 2015: The Thai Arbitration Institute
Dispute Topic	TOT submitted a dispute to the Arbitration tribunal to order AIS to rent 11,883 base stations, which are used for the installation of towers and telecommunication equipment to provide telecommunication services under the Concession Agreement for an additional 2 years after the expiration of the Concession Agreement. TOT requests that, in the event that AIS fails to comply such rental, AIS shall be required to pay the said rental and all relevant expenses during 2 years, amounting to Baht 1,911 million, or the same amount should be paid to the court.
Result of case	On 18 June 2019, the arbitration tribunal approved of TOT's request to withdraw the dispute as raised by TOT, therefore the case was dismissed.
Status of Case	The dispute was settled since AIS and TOT agreed to the Settlement of Dispute and Service regarding the Telecommunication Tower dated 4 September 2019. Awn agreed to use telecommunication tower from TOT and TOT agreed to use the site and maintenance service from Awn for the period of 10 years from January 2019 onwards.

5.1.7	Additional remuneration from the rental fees of fiber cable and the rental fees from leased line.
Litigant	TOT and AIS
Submitted date and Tribunal	15 December 2017 and 12 January 2018: The Thai Arbitration Center
Dispute Topic	TOT submitted the dispute to the arbitration tribunal for the decision requesting the additional payment from AIS to pay from the rental fees of fiber cable and the rental fees from leased line which AIS received from service providers during the 1 st quarter of 2011 to the 3rd quarter of 2012 in the total amount of Baht 19.54 million and during the 4th quarter of 2012 to the 3rd quarter of 2015 in the total amount of Baht 1,121.91 million with VAT and interest rate of 1.25 per month.
Result of case	-
Status of Case	The case is under the consideration of the Arbitration tribunal.

5.1.8	Usage fees of TOT's space and assets during Subscriber Protection Period
Litigant	TOT and AIS
Submitted date and Tribunal	15 February 2018: The Thai Arbitration Center
Dispute Topic	TOT submitted the dispute to the arbitration tribunal for the decision requesting the payment from AIS for the usage of TOT's space and assets during Subscriber Protection Period for 900 MHz system in the amount of Baht 171.48 million including VAT and interest rate of 1.25 per month.
Result of case	-
Status of Case	The case is under the consideration of the Arbitration Tribunal.

5.1.9	Remuneration from joint use of network
Litigant	TOT and AIS
Submitted date and Tribunal	27 September 2018: The Thai Arbitration Institute
Dispute Topic	TOT submitted the dispute to the arbitration tribunal for the decision requesting the additional payment from AIS to pay from the authorization for Awn to jointly use the network with the discount of joint network usage fees without prior consent from TOT during July 2013 to September 2015 in the total amount of Baht 16,252.66 million including VAT and interest.
Result of case	-
Status of Case	The case is under the consideration of the arbitration tribunal.

5.2 Legal Disputes under PCN Agreement 1800

5.2.1	Deduction of excise tax from revenue share.
Litigant	CAT and DPC
Submitted date and Tribunal	9 January 2008: The Thai Arbitration Institute 3 June 2011: The Central Administrative Court 3 September 2015: The Supreme Administrative Court
Dispute Topic	CAT submitted the dispute demanding DPC to pay additional remuneration under the case of deduction of excise tax from revenue share of PCN Agreement 1800 for the amount of 2,449 million Baht plus penalty at the rate of 1.25 percent

5.2.1	Deduction of excise tax from revenue share.
Litigant	CAT and DPC
	per month of the unpaid amount of each year calculated from the default date until full payment is made in total of 3,949 million Baht. DPC argued that the requested amount was the same as excise tax as paid by DPC during 16 September 2003 to 15 September, 2007 and such amount was deducted from revenue share pursuant to Cabinet Resolution dated 11 February, 2003.
Result of case	<p>On 1 March 2011, the Arbitral Tribunal dismissed the dispute as the original debt had completely been paid and extinguished. DPC then has not committed any breach of the Digital 1800 Agreement.</p> <p>On 3 June 2011, CAT submitted a request to the Central Administrative Court to revoke the award of the Arbitral Tribunal.</p> <p>On 28 July 2015, the Central Administrative Court dismissed the request of CAT by giving the reason that CAT was the one who sent the letter declaring its intention to change the criteria of revenue share payment of excise taxes according to cabinet resolution and had accepted the revenue share amount after deducting the excise and returned the letter of guarantee to DPC without raising any objections. The award of the Arbitral Tribunal was, therefore, in compliance with the provisions of the law and the provisions of the Agreement.</p>
Status of Case	On 25 August 2015, CAT submitted the appeal to the Supreme Administrative Court, The case is under the consideration of the Supreme Administrative Court.

5.2.2	Deduction of access charges from revenue share.
Litigant	CAT and DPC
Submitted date and Tribunal	<p>29 July 2008: The Thai Arbitration Institute</p> <p>25 June 2011: The Central Administrative Court</p> <p>15 October 2014: The Supreme Administrative Court</p>
Dispute Topic	<p>CAT demanded that DPC pay the Access Charge which DPC had deducted and has not yet delivered to CAT as follows:</p> <p>Additional charge of 7th-10th concession years of Baht 165 million including VAT plus penalty at the rate of 1.25 percent per month, calculated on 31 July 2008, totaling Baht 222 million.</p> <p>Additional charge of 11th concession year of Baht 23 million including VAT plus penalty at the rate of 1.25 percent per month, calculated on 15 October 2009, totaling Baht 26 million.</p> <p>The total claimed amount of both cases is Baht 248 million.</p>
Result of case	<p>On 23 March 2012, the Arbitral Tribunal dismissed all disputes on the ground that CAT has not yet paid the interconnection charge for the part of which DPC has to pay to TOT as stipulated in the Interconnection Agreement. Therefore, CAT has no right to claim those charge from DPC. In attestation, it is not admissible that the consideration paid by DPC in each year is regarded as a breach of the Digital 1800 Agreement.</p> <p>On 25 June 2012, CAT submitted a request to the Central Administrative Court to revoke the award of the Arbitral Tribunal.</p> <p>On 16 September 2014, Central Administrative Court dismissed the request of CAT.</p>

5.2.2	Deduction of access charges from revenue share.
Litigant	CAT and DPC
Status of Case	On 15 October 2014, CAT submitted appeal to Supreme Administrative court. On 7 August 2019, the Supreme Administrative Court followed the decision by Central Administrative Court to dismiss CAT's appeal. The case reached finality of verdict.

5.2.3	Reduction of roaming fee
Litigant	CAT and DPC
Submitted date and Tribunal	7 April 2010: The Thai Arbitration Institute 3 July 2019 : The Central Administrative Court
Dispute Topic	DPC submitted a dispute to the Arbitration Tribunal requesting that CAT be ordered to revoke its allegation that DPC breached the Digital 1800 Agreement by having entered into an agreement with AIS for the use of the DPC network without receiving the consent of CAT. DPC also demanded that CAT pay for damages in the amount of Baht 50 million. On 15 July 2010, CAT requested DPC to pay additional remuneration for the 10 -12th concession year incurred due to DPC having reduced the roaming charge rate between DPC - AIS from Baht 2.10 to Baht 1.10 during the period of 1 April 2007 - 31 December 2008 without the approval of CAT. The requested damages are in the amount of Baht 1,640 million plus penalty calculated up to March 2010 in the amount of Baht 365 million totaling Baht 2,000 million. In addition, a penalty is also applied at the rate of 1.25 percent per month calculated from April 2010. On 12 September 2011, CAT submitted additional dispute for the 12th concession year (1 April 2009 to 15 June 2009) in the amount of Baht 113 million.
Result of case	On 28 March 2019, the arbitration tribunal decided for DPC to pay additional remuneration of 10th to 12th concession year to CAT under the consideration that the agreement regarding the remuneration of roaming fees (at the rate of 2.10 Baht) was legitimate, the reduction of roaming fees was the privilege and right of CAT.
Status of Case	On 3 July 2019, DPC requested to revoke such decision to Central Administrative Court. The case is currently under consideration of Central Administrative Court.

5.2.4	Damages from international call service
Litigant	CAT and DPC
Submitted date and Tribunal	8 April 2011: The Thai Arbitration Institute 6 September 2013: The Central Administrative Court
Dispute Topic	CAT demanded that DPC pay remuneration in the amount of Baht 33 million including interest at the rate of 15 percent per annum, calculated at Baht 35 million in total. CAT claimed that DPC had committed a breach of the Digital PCN Agreement 1800 in the form of fraudulent use of documents/signatures of subscribers during the year 1997 - 2003 covering a total of 1,209 numbers. Such fraudulent action was claimed to have caused damage to CAT since CAT could not collect the fees for international call services when the fraudulent numbers had used the international call service of CAT.

5.2.4	Damages from international call service
Litigant	CAT and DPC
Result of case	On 28 May 2013, the Arbitral Tribunal dismissed all disputes of CAT by giving the reason which can be summarized as follows. Such disputes are the act of tort, and DPC has not committed any breach of the PCN Agreement 1800. Therefore, the dispute of this case is not within the jurisdiction of the Arbitral Tribunal.
Status of Case	On 6 September 2013, CAT submitted a request to the Central Administrative Court to revoke the award of the Arbitral Tribunal which is presently pending on the consideration of the Central Administrative Court.

5.2.5	Access Charges
Litigant	TOT and CAT / DPC
Submitted date and Tribunal	9 May 2011: The Central Administrative Court
Dispute Topic	<p>TOT filed a lawsuit at the Central Administrative Court demanding that CAT and DPC jointly pay the Access Charge under the Interconnection Agreement of DPC dated 8 September 1997, as follows:</p> <p>TOT has requested that the demanded Access Charge calculated on the amount of the mobile number which DPC had rendered the service in each month at the of Baht 200 per number, in the amount of Baht 1,289 million;</p> <p>The Access Charge, which CAT has to pay to TOT calculated on a half of the revenue sharing which CAT had received from DPC, in the amount of Baht 3,944 million; and</p> <p>The Access Charge, which CAT did not fully pay to TOT due to the deduction of the Access Charge at the rate of Baht 22 /number /month, in the amount of Baht 222 million.</p> <p>The total amount of the 3 claims is Baht 5,454 million plus interest.</p>
Result of case	On 31 May 2019, Central Administrative Court dismissed TOT's claim under the reason that the rate of Access Charges was not in accordance with laws and NBTC's notification regarding the Usage and Connection of Telecommunication Network. The court ordered for the Access Charges to follow the NBTC's notification.
Status of Case	TOT, CAT and DPC did not appeal this case. The case reached finality of verdict.

5.2.6	Remuneration from interconnection charges.
Litigant	CAT and DPC
Submitted date and Tribunal	24 August 2012 and 1 April 2014: The Thai Arbitration Institute 17 December 2019: The Central Administrative Court
Dispute Topic	CAT submitted a dispute to the Arbitration tribunal demanding DPC to pay additional remuneration for the 10 th -14 th concession years in addition to the interconnection charge received (gross income) before deduction of the interconnection charge paid in the amount of Baht 183 million plus penalty at the rate of 1.25 percent per month. On 1 April 2014, CAT has raised the dispute demanding that DPC pay additional remuneration for the 15 th concession year in the amount of Baht 114 million and for the 16 th concession year in the amount of Baht 88.80 million plus penalty at the rate of 1.25 per month. The total claimed amount is Baht 324 million.

5.2.6	Remuneration from interconnection charges.
Litigant	CAT and DPC
Result of case	On 26 September 2019 and 10 October 2019, the arbitration tribunal decided to dismiss CAT's dispute.
Status of Case	On 17 December 2019, and 25 December 2019, CAT requested to revoke arbitration tribunal's decision. The case is currently under consideration by Central Administrative Court.

5.2.7	Asking for return of letter of guarantee for minimum remuneration
Litigant	DPC and CAT
Submitted date and Tribunal	8 October 2012: The Thai Arbitration Institute 15 September 2015: The Central Administrative Court 11 October 2018: The Supreme Administrative Court
Dispute Topic	Subject to the PCN Agreement 1800, CAT had to return the letter of guarantee of each year to DPC at the moment that DPC made a payment of remuneration and additional remuneration to CAT. Since CAT did not return the letter of guarantee for the minimum remuneration for 10th to 14th concession years to DPC in the total amount of 2,606 million Baht, claiming that DPC paid incomplete payment by deducting excise tax of the remuneration and also referencing the case of Access Charges and the case of roaming fees reduction which were under dispute. Therefore, DPC demanded that CAT surrender the letter of guarantee for the minimum remuneration of the 10th -14th concession years and that CAT be prohibited from claiming any money from the bank against this letter of guarantee. DPC also demanded that CAT pay the bank commission for the letter of guarantee including the damage to DPC's reputation and financial credit in the amount of Baht 109 million.
Result of case	On 28 May 2015, the Arbitration tribunal awarded an order that CAT return the letter of guarantee and pay the bank commission for the letter of guarantee to DPC. On 15 September 2015, CAT submitted the request to revoke such decision to the Central Administrative Court which on 13 September 2018, the Central Administrative Court dismissed CAT's request.
Status of Case	On 11 October 2018, CAT submitted the appeal to Supreme Administrative Court. The case is currently under the consideration of Supreme Administrative Court.

5.2.8	Revision of letter of guarantee for minimum remuneration
Litigant	CAT and DPC
Submitted date and Tribunal	28 August 2013: The Thai Arbitration Institute 8 December 2017: The Central Administrative Court
Dispute Topic	Subject to the PCN Agreement 1800, DPC shall provide the letter of guarantee for minimum remuneration of each concession year to CAT. In 15 th and 16 th year, DPC revised existing clauses of the letter of guarantee to be in compliance with minimum remuneration payment obligation of each year in relation to the terms and conditions of PCN Agreement 1800. However, CAT submitted a dispute to the Arbitration tribunal demanding that DPC return the letter of guarantee for the revenue sharing agreement of the 15th - 16th concession years, claiming that the

5.2.8	Revision of letter of guarantee for minimum remuneration
Litigant	CAT and DPC
	present letter of guarantee submitted by DPC contained faulted clauses and does not comply with the PCN Agreement 1800.
Result of case	On 30 August 2017, the arbitration committee decided to dismiss CAT's dispute.
Status of Case	On 8 December 2017, CAT submitted the petition to dismiss such decision to the Central Administrative court. The case is pending on the consideration of the Central Administrative Court.

5.2.9	Usage fees and revenue from the use of the telecommunication equipment and telecommunication network of CAT during the temporary customer protection period
Litigant	CAT and DPC
Submitted date and Tribunal	20 May 2015: The Central Administrative Court
Dispute Topic	<p>CAT submitted a lawsuit to the Central Administrative Court demanding NBTC Office, NTC, NBTC, True Move and DPC to pay usage fees and revenue from the usage of the telecommunication equipment and telecommunication network of CAT. The usage in question occurred during the temporary customer protection period, subject to the NBTC Re: the Temporary Customer Protection Plan Following the Expiration of the Concession Agreement or Telecommunication Service Agreement, calculated from 16 September 2013 to 15 September 2014. The total amounts collectively demanded from NBTC Office, NTC and NBTC, True Move and DPC is Baht 6,083 million including interest at the rate of 7.5 per annum.</p> <p>On 11 September 2015, CAT submitted a request to the Central Administrative Court claiming for the additional usage fees and revenue from the usage of CAT's telecommunication equipment and telecommunication network calculated from 16 September 2014 to 17 July 2015. The total amount demanded collectively from DPC, NBTC Office, NTC and NBTC is Baht 1,635 million including interest at the rate of 7.5 per annum.</p> <p>On 27 May 2016, CAT submitted a request demanding the defendants to pay additional usage fees / revenue from usage of CAT's telecommunication equipment and network from 28 July 2015 to 25 November 2015. Requesting from DPC together with the Office of NBTC, NTC and NBTC in the amount of 673 million Baht including interest at the rate of 7.5% per annum.</p> <p>On 24 September 2019, CAT submitted for a request revision to reduce the remuneration amount during 3 periods, formerly as 6,083 million Baht, 1,635 million Baht and 673 million Baht to 1,457 million Baht, 1,223 million Baht and 522 million Baht respectively.</p>
Result of case	-
Status of Case	The case is pending the consideration of the Central Administrative Court.

5.2.10	Unauthorized installation of AIS telecommunication equipment at DPC's base stations
Litigant	CAT and AIS
Submitted date and Tribunal	19 March 2018: The Civil Court
Dispute Topic	CAT filed a lawsuit to the Central Administrative Court demanding AIS to pay for damages resulting from the installation of telecommunications equipment within the base stations which previously belonged to DPC but for which the ownership has been transferred to CAT under the Digital 1800 Agreement. The claim relates to 95 sites in which the equipment was installed without the consent of CAT during the period of January 2012 to April 2016. The total amount of damages claimed is Baht 125.52 million and the compensation from the filing date is Baht 2.83 million per month until the dismantling of such equipment.
Result of case	-
Status of Case	The case is currently under consideration of Civil Court.

5.2.11	Unauthorized installation of AWN telecommunication equipment at DPC's base stations
Litigant	CAT and AWN
Submitted date and Tribunal	19 March 2018: The Civil Court
Dispute Topic	CAT filed a request at the Central Administrative Court demanding that AWN pay compensation for damages arising from the installation of its own telecommunication equipment within DPC's base stations, the ownership of which were transferred to CAT subject to the Concession Agreement to operate and provide services on the cellular network (Digital PCN (Personal Communication Network) 1800 without permission from CAT. In total, 67 sites are affected under this dispute with the alleged discretions taking place during the period from January 2013 to June 2016. The amount demanded by CAT is Baht 57,531 million with the interest in the amount of Baht 5,205 million equals to Baht 62.736 million plus damages from the date of submission of the complaint in the amount of Baht 2 million per month until the date that such telecommunication equipment is dismantled.
Result of case	-
Status of Case	The case is under the consideration of the Civil Court .

5.2.12	Allowing third party telecommunication operators to use telecommunication equipment under the Concession Agreement
Litigant	CAT and DPC
Submitted date and Tribunal	30 June 2016: The Thai Arbitration Institute
Dispute Topic	CAT submitted a dispute to the arbitration tribunal ordering DPC to dismantle the telecommunications equipment owned by the Company and also the equipment owned by AWN, an AIS affiliate. Such equipment has been installed and implemented on DPC's network, the ownership of which was transferred to CAT subject to the Concession Agreement to operate and provide services on the cellular network (Digital PCN (Personal Communication Network) 1800 without permission from CAT. In total, this dispute relates to 97 sites with the alleged

5.2.12	Allowing third party telecommunication operators to use telecommunication equipment under the Concession Agreement
Litigant	CAT and DPC
	discretions taking place during the period from January 2013 to June 2016 in the total amount of Baht 175.19 Million demanded by CATs.
Result of case	-
Status of Case	The case is under the consideration of the Arbitration tribunal.

5.2.13	Transfer of ownership of telecommunication equipment subject to PCN 1800 Agreement
Litigant	CAT and DPC
Submitted date and Tribunal	28 March 2018: The Thai Arbitration Institute
Dispute Topic	CAT submitted the dispute to the arbitration tribunal for the decision to order DPC to transfer ownership of 4,657 telecommunication towers, 3,012 containers, Call Center system, power system and mobile number portability system which DPC collectively used with AIS since CAT believed that DPC did not comply with the terms and conditions of PCN 1800 Agreement which specified DPC to provide and transfer the ownership of telecommunication equipment to CAT. In case the transfer is not possible then DPC shall compensate in money, damages and loss of business opportunity in the amount of Baht 13,431.45 million with interest in the rate of 7.5 per annum.
Result of case	-
Status of Case	The case is under the consideration of the Arbitration tribunal

5.2.14	Transfer of telecommunication towers and containers
Litigant	CAT and DPC
Submitted date and Tribunal	31 October 2018: The Thai Arbitration Institute
Dispute Topic	DPC submitted for return of 155 telecommunication towers transferred to CAT since DPC believed that telecommunication towers were not telecommunication tools and equipment subject to PCN Agreement 1800. Therefore, CAT submitted the dispute to the arbitration tribunal for the decision to order DPC to transfer ownership of such telecommunication towers. In case the transfer is not possible then DPC shall compensate in money, damages and loss of business opportunity in the amount of Baht 501.42 million with interest in the rate of 7.5 per annum.
Result of case	-
Status of Case	The case is under the consideration of the Arbitration tribunal

5.3 Legal Disputes under the Act on Organization to Assign Radio Frequency and Telecommunication Business Act

5.3.1	Revocation of the resolution and order of NBTC to collect the information from existing subscribers using Pre-Paid Mobile Service
Litigant	AIS and NBTC and Secretary General of NBTC
Submitted date and Tribunal	13 September 2011: The Central Administrative Court 18 December 2015: The Supreme Central Administrative Court

5.3.1	Revocation of the resolution and order of NBTC to collect the information from existing subscribers using Pre-Paid Mobile Service
Litigant	AIS and NBTC and Secretary General of NBTC
Dispute Topic	NTC (currently NBTC) and Secretary of NTC (currently the Secretary of NBTC) ordered AIS to retroactively collect pre-paid subscribers' information before effective date of Notification of NBTC Re: The Criteria for the Allocation of Numbers B.E. 2551 coming into force on 24 October 2008. AIS filed a lawsuit to the Central Administrative Court requesting to revoke the resolution and order of NBTC to collect the information from existing subscribers using Pre-Paid Mobile Service prior to the announcement date of the Notification of NBTC Re: The Criteria for the Allocation of Numbers B.E. 2551 coming into force on 24 October 2008, within 180 days from the effective date of this NBTC Notification. Under this lawsuit, AIS particularly requested revocation of the order requiring AIS to pay administrative fines of 80,000 Baht per day commencing on 6 July 2012 until the Company has completely performed all requested obligations.
Result of case	On 19 November 2015, the Central Administrative Court reached its judgment which was to revoke the resolution and overturn the administrative fines on the grounds that: such order enforced the operators to retrospectively store subscriber data which includes the personal information that the subscribers are required to disclose, without any measure for enforcement by service suspension or termination. there are a large number of subscribers. It is difficult to perform the requested actions without cooperation from the subscribers. In this regard, NBTC's resolution and order are unlawful because NBTC used power and discretion beyond the scope of regulatory duties, which created a huge burden impact on the operators.
Status of Case	On 18 December 2015, NBTC submitted an appeal to the Supreme Administrative Court which is currently pending consideration of the Supreme Administrative Court.

5.3.2	Revocation of the order of NTC ordering the Company to amend the drafted Pre-Paid Mobile Service Agreement on validity of prepaid service
Litigant	AIS and NTC and the Secretary General of NTC
Submitted date and Tribunal	27 May 2011: The Central Administrative Court 9 December 2016: The Supreme Administrative Court
Dispute Topic	NTC (currently NBTC) prohibited AIS from specifying the validity term of pre-paid mobile service agreement, ordering AIS to revise the draft of pre-paid mobile service agreement to not have any condition regarding the validity term. AIS filed a lawsuit to the Central Administrative Court seeking to revoke the order of NTC ordering the Company to amend the drafted Pre-Paid Mobile Service Agreement which prohibited the condition concerning the validity term.
Result of case	On 10 November 2016, the Central Administrative Court dismissed the case filed by AIS for the reason that such case was filed after the available prescription. Moreover, the delayed case was not subject to reasonable cause and the case was not filed on behalf of public interest, but for the benefit of AIS as the plaintiffs themselves. As for the order issued by NTC following such announcement, the Central Admin Court passed the judgment that since the announcement has

5.3.2	Revocation of the order of NTC ordering the Company to amend the drafted Pre-Paid Mobile Service Agreement on validity of prepaid service
Litigant	AIS and NTC and the Secretary General of NTC
	remained in force and has not been revoked, the order issued subject to such announcement is then legitimate.
Status of Case	On 9 December 2016, AIS then appealed to the Supreme Administrative Court and the case is in the consideration process.

5.3.3	Revocation of the order of NBTC Re: Maximum Rate of Service Fee
Litigant	AIS and NBTC and the Secretary General of NBTC
Submitted date and Tribunal	2 July 2012: The Central Administrative Court 21 April 2017: The Supreme Administrative Court
Dispute Topic	AIS filed a lawsuit to the Central Administrative Court seeking to revoke the order of NBTC Re: Maximum Rate of Service Fee for Domestic Mobile Phone Voice Services B.E. 2555. The order issued by NBTC required the collection of domestic voice service fees at the rate not exceeding Baht 0.99 /minute, enforceable only on the significant market dominance because AIS is of the opinion that it is the wrongful order and unfair treatment.
Result of case	On March 24, 2017, the Central Administrative Court dismissed the case and AIS appealed to the Supreme Administrative Court on April 21, 2017.
Status of Case	The case is pending the consideration of the Supreme Administrative Court.

5.3.4	Revocation of the announcement of NBTC Re: Temporary Subscribers' Protection (2nd Issue) after the expiration of the concession period
Litigant	AIS and NBTC
Submitted date and Tribunal	18 December 2015: The Central Administrative Court 11 October 2019: Supreme Administrative Court
Dispute Topic	AIS filed a lawsuit to the Central Administrative Court requesting the revocation of the announcement of NBTC Re: Temporary Subscribers' Protection (2nd Issue) After the Expiration of the Concession period, the new announcement specified additional conditions for paying revenue during the remedy period to be not less than the share incurred subject to the Concession Agreement based on the fact that such new announcement was unfair and enforced selectively compared with the previous announcement which did not specify such condition.
Result of case	On 11 September 2019, Central Administrative Court decided to revoke such NBTC's announcement regarding the minimum remuneration to not be less than revenue share subject to Concession Agreement 900.
Status of Case	On 11 October 2019, NBTC submitted the appeal to Supreme Administrative Court. The case is now under consideration of Supreme Administrative Court.

5.3.5	Revocation of the resolution from NTC which ordered AIS to pay the revenue during the subscriber protection period
Litigant	AIS and NBTC Office, NBTC and NTC
Submitted date and Tribunal	1 May 2017: The Central Administrative Court
Dispute Topic	AIS filed a lawsuit against NBTC Office, NBTC and NTC to the Central Administrative Court to revoke the order from NBTC Office and resolution from

5.3.5	Revocation of the resolution from NTC which ordered AIS to pay the revenue during the subscriber protection period
Litigant	AIS and NBTC Office, NBTC and NTC
	NTC which ordered AIS to pay the revenue during the subscriber protection period after the expiration of Concession Agreement from October 1, 2015 – June 30, 2016 in accordance with the NBTC Re: The Temporary Customer Protection Plan in the amount of Baht 7,221 Million. Because AIS had expense more than revenue during the protection period of subscriber on 900 MHz frequency. Therefore, there was no remaining revenue to be paid to the NBTC Office.
Result of case	-
Status of Case	The case is pending on the consideration of the Central Administrative Court.

5.3.6	Revocation of the resolution and order of NTC to pay the revenue arising from the mobile service charges within the temporary customer protection period.
Litigant	DPC and NBTC Office, NTC, and NBTC
Submitted date and Tribunal	16 November 2015: The Central Administrative Court
Dispute Topic	DPC submitted a lawsuit to the Central Administrative Court requesting the revocation of the resolution and order of NBTC to pay the revenue arising from the mobile service charges within the temporary customer protection period. The period in question follows the announcement of the NBTC Re: The Temporary Customer Protection Plan B.E.2013 and covers from 16 September 2013 to 17 July 2014 (First Period). The amount requested is Baht 628 million and all interest accrued therefrom.
Result of case	-
Status of Case	<p>On 16 September 2016 NBTC and the Secretary General of NBTC filed a lawsuit to the Central Administrative Court requesting that DPC pay a share of revenue generated during the remedy period. Such period commenced from the coming into effect of the Subscribers Protection Period subject to the NBTC's announcement regarding the Temporary Customer Protection Plan B.E.2013 and lasted until the date of the order issued by the National Council for Peace and Order (NCPO). This period covers 16 September 2013 to 17 July 2014. The requested amount is Baht 628 million including interest.</p> <p>On 12 July 2019, NBTC submitted a request to revise complaint by requesting DPC to pay for revenue during the whole Subscribers Protection Period (16 September 2013 to 25 November 2015) in total amount of 869.51 million Baht. The case is now under consideration of Central Administrative Court.</p> <p>The case is pending on the consideration of the Central Administrative Court.</p>

5.3.7	Revocation of the order of NTC ordering DPC to pay revenue from the provision of telecommunication service during subscriber protection period
Litigant	DPC and NBTC and the Secretary General of NBTC
Submitted date	7 December 2018 The Central Administrative Court

5.3.7	Revocation of the order of NTC ordering DPC to pay revenue from the provision of telecommunication service during subscriber protection period
Litigant	DPC and NBTC and the Secretary General of NBTC
and Tribunal	
Dispute Topic	DPC filed a lawsuit to the Central Administrative Court seeking to revoke the order of NBTC ordering DPC to pay revenue from the provision of telecommunication service during subscriber protection period from the date protection subject to the NBTC's announcement regarding the temporary subscriber protection method B.E.2556 during 16 September 2013 to 25 November 2015 in the amount of Baht 869.51 million which NBTC ordered DPC to pay the revenue of the first period (16 September 2013 to 17 July 2014) in the amount of Baht 627.63 million before. Therefore, DPC was ordered to pay additional revenue in the amount of Baht 241.87 million including the incurred interest.
Result of case	-
Status of Case	The case is currently under consideration by the Central Administrative Court.

5.4 Other legal disputes

5.4.1	Revenue Department of Thailand ordered AIS to pay for additional payment
Litigant	AIS and Revenue Department
Submitted date and Tribunal	10 November 2016: The Central Tax Court 10 July 2019: Supreme Court
Dispute Topic	AIS filed a lawsuit at the Central Tax Court requesting revocation of the assessment of the authority and the decision of appeal by the Appeal Committee as well as a decrease or cessation of additional payment arising from the case in which the assessment authority ordered AIS to make additional payment in the total amount of Baht 128,215,149.73. The additional payment was applied as a result of the wrongful deduction and payment of withholding taxes from the share paid to TOT by AIS and calculated by subtracting the excise taxes before making payment in accordance with the decision from the Cabinet.
Result of case	On September 29, 2017, the Central Tax Court dismissed the case. On March 11, 2019, the Appeal Court decided this case in accordance with the Central Tax Court to dismiss the case
Status of Case	On July 10, 2019, AIS submitted this case to Supreme Court. The case is now under consideration of Supreme Court.

5.4.2	Requesting for payment for the usage of telecommunication equipment, transmission system service fees within the building subject to Concession Agreement
Litigant	AWN and TOT
Submitted date and Tribunal	31 January 2017: The Civil Court
Dispute topic	TOT filed a lawsuit against AWN to the Civil Court requesting AWN to pay for the usage of telecommunication equipment, transmission system service fees within the building, and electricity usage fees during 1 October 2015 to 30 June 2016 in the amount of Baht 559.62 million with interest in the rate of 7.5 per annum.
Result of case	On 31 May 2018, the Civil Court made a decision and order AWN to pay TOT as requested with interest.
Status of case	On October 2, 2019, AWN submitted for withdrawal of appeal on 19 November 2018, since TOT and AWN entered into the settlement agreement. AWN paid usage fees of telecommunication tools and equipment including interest to TOT subject to Civil Court's decision and TOT did not argue regarding the appeal withdrawal (under consideration of Appeal Court).

6. General information and other significant information

General information of the Company

The Company name	: Advanced Info Service Public Company Limited
Symbol for trading	: ADVANC
Registered date on the SET	: 5 November 1991
Market capitalization	: Baht 633,287 million (as of 30 December 2019)
Registered capital	: Baht 4,997,459,800
Paid-up capital	: Baht 2,973,178,632
Total shareholders	: 37,087 persons (as of 19 August 2019, the latest book closing date for the rights to receive dividend)
Free float	: 36.22%
Type of business	: Operate telecommunication business including mobile network service, fixed broadband service, and digital services.
Head office	: 414 Phaholyothin Road, Samsen Nai, Phayathai, Bangkok 10400
Registered No.	: 0107535000265
Corporate website	: http://www.ais.co.th
IR website	: http://investor.ais.co.th/
Telephone	: (66) 2029 5000

American Depositary Receipt

ADR ticker symbol	: AVIFY
Exchange	: Over The Counter (OTC)
Depository	: The Bank of New York Mellon
ADR to ORD share ratio	: 1:1
ADR CUSIP number	: 00753G103

General information of AIS's affiliates

No	Subsidiaries	Business	Registered Capital (Million Share)	Par Value (Baht per share)	Paid-up Capital (Million Baht)	% of Investment
1	Advanced Wireless Network Co.,Ltd. (AWN) 414 Phaholyothin Road, Samsen Nai, Phayathai, Bangkok Tel : (66) 2029 5000 Fax : (66) 2029 5019	Telecommunication service provider of 2.1GHz, 900MHz and 1800MHz frequencies, distributor of handsets, international telephone service, network operator, telecom service operator and national broadcasting network services without frequency usage.	13.5	100	1,350	99.99
2	Advanced Datanetwork Communications Co.,Ltd. (ADC) (an indirect subsidiary via DPC) 414 Phaholyothin Road, Samsen Nai, Phayathai, Bangkok Tel : (66) 2029 5000 Fax : (66) 2029 5019 Website : www.adc.co.th	Service provider of online data communication service via telephone landlines and optical fiber	95.75	10	957.52	51.00 ^b
3	Digital Phone Co.,Ltd. (DPC) 414 Phaholyothin Road, Samsen Nai, Phayathai, Bangkok Tel : (66) 2029 5000 Fax : (66) 2029 5019	Stop providing service due to the expiration to provide cellular communication service, Digital PCN 1800, according to the contract.	91.39	10	913.86	98.55
4	Advanced mPAY Co.,Ltd. (AMP) 414 Phaholyothin Road, Samsen Nai, Phayathai, Bangkok Tel : (66) 2029 5000 Fax : (66) 2029 5019	Service provider of payment business via mobile phone	30	10	300	99.99
5	Super Broadband Network Co.,Ltd. (SBN) 414 Phaholyothin Road, Samsen Nai, Phayathai, Bangkok Tel : (66) 2029 5000 Fax : (66) 2029 5019 Website : www.sbn.co.th	Network operator and telecom service operator i.e. internet service (ISP), Dedicated Leased Line , IPLC & IP VPN, Voice Over IP, IP Television	3	100	300	99.99

No	Subsidiaries	Business	Registered Capital (Million Share)	Par Value (Baht per share)	Paid-up Capital (Million Baht)	% of Investment
6	Advanced Contact Center Co.,Ltd. (ACC) 414 Phaholyothin Road, Samsen Nai, Phayathai, Bangkok Tel : (66) 2029 5000 Fax : (66) 2029 5019	Call center service	27.2	10	272	99.99
7	Advanced Digital Distribution Co.,Ltd. (ADD) 414 Phaholyothin Road, Samsen Nai, Phayathai, Bangkok Tel : (66) 2029 5157 Fax : (66) 2029 5019	Non-life insurance broker	0.054	100	54	99.99
8	Advanced Magic Card Co.,Ltd. (AMC) 414 Phaholyothin Road, Samsen Nai, Phayathai, Bangkok Tel : (66) 2029 5000 Fax : (66) 2029 5019	Distributor of cash card business	25	10	250	99.99
9	Teleinfo Media Public Company Limited (TMC)²⁾ (an indirect subsidiary via CSL) 414 Phaholyothin Road, Samsen Nai, Phayathai, Bangkok Tel : (66) 2262 8888 Fax : (66) 2262 8899 Website : www.csloxinfo.com	Provide advertising online platform through Website, PC, Mobile and Laptop for business and individual user	15.65	10	156.54	99.99
10	CS LoxInfo Public Company Limited (CSL)²⁾ (an indirect subsidiary via AWN) 414 Phaholyothin Road, Samsen Nai, Phayathai, Bangkok Tel : (66) 2263 8000 Fax : (66) 2263 8132 Website : www.csloxinfo.com	Provide our corporate customers with solutions for brand range of internet-based services	594.51	0.25	148.63	99.58
11	AIN GlobalComm Co.,Ltd. (AIN) 414 Phaholyothin Road, Samsen Nai, Phayathai, Bangkok Tel : (66) 2029 5000 Fax : (66) 2029 5019 Website : www.ain.co.th	International telephone service gateway	2	100	100	99.99

No	Subsidiaries	Business	Registered Capital (Million Share)	Par Value (Baht per share)	Paid-up Capital (Million Baht)	% of Investment
12	Advanced Broadband Network Co.,Ltd. (ABN) 414 Phaholyothin Road, Samsen Nai, Phayathai, Bangkok Tel : (66) 2029 5000 Fax : (66) 2029 5019	Provide training services	0.75	100	75	99.99
13	Wireless Device Supply Co.,Ltd. (WDS) 414 Phaholyothin Road, Samsen Nai, Phayathai, Bangkok Tel : (66) 2029 5000 Fax : (66) 2029 5019	Importer and distributor of handsets and accessories	0.5	100	50	99.99
14	MIMO Tech Co.,Ltd. (MMT) 1291/1 Phaholyothin Road, Phayathai, Phayathai, Bangkok Tel : (66) 2029 5000 Fax : (66) 2029 5019	Develop IT system, engaging in content aggregator business and provide collection of revenue service from customers	0.5	100	50	99.99
15	AD Venture Public Company Limited (ADV)²⁾ (an indirect subsidiary via CSL) 414 Phaholyothin Road, Samsen Nai, Phayathai, Bangkok Tel : (66) 2262 8888 Fax : (66) 2262 8877 Website : www.shinee.com	Content provider through mobile phone, community portal services, and application on smart phone via ISO and android systems	1.07	10	10.75	99.99
16	Fax Lite Co.,Ltd. (FXL) 1291/1 Phaholyothin Road, Phayathai, Phayathai, Bangkok Tel : (66) 2029 5000 Fax : (66) 2029 5019	Operate in acquiring and/or lease building, and related facilities for telecommunications business	0.01	100	1	99.98
17	Yellow Pages Commerce Company Limited (YPC)²⁾ (an indirect subsidiary via TMC) 1126/2 Vanit Bldg.2, New Phetchaburi Road, Makkasan, Ratchathewi, Bangkok Tel : (66) 2262 8888 Fax : (66) 2262 8823	To engage in business concerning advertising and publishing of business and activities to individuals, non-juristic bodies of persons, juristic persons and government sectors by using every type of advertising and operate the business in distribution, supplying, agent for every public relation task.	0.01	10	0.1	99.94

Notes:

¹⁾ The remaining share percentage of ADC in the amount of 49% is held by other persons with no conflict of interest.

²⁾ AWN acquired ordinary shares in CSL, equivalent to 99.58% of the paid-up capital, through a voluntary tender offer. As a result, TMC, ADV and YPC are an indirect subsidiary via CSL.

No	Associated Company	Business	Registered Capital (Million Share)	Par Value (Baht per share)	Paid-up Capital (Million Baht)	% of Investment
1	Information Highway Co., Ltd. (IH) 52/1 Moo 5 Bang Kruai-Sai Noi Road, Bangsitong, Bang Kruai, Nonthaburi Tel : (66) 2029 5055 Fax : (66) 2029 5019	Transmission network provider	0.5	100	50	29.00

No	Joint Venture	Business	Registered Capital (Million Share)	Par Value (Baht per share)	Paid-up Capital (Million Baht)	% of Investment
1	Amata Network Co., Ltd. (AN) 702/2 Moo 1, Klongtamru, Muang, Chonburi Tel : (66) 2029 5055 Fax : (66) 2029 5019	Provide fiber optic network infrastructure in Amata industrial estate.	1	100	100	60.00
2	Rabbit Line Pay Co., Ltd. (RLP) 127 Gaysorn Tower, Unit A, B 18 th Floor, Ratchadamri Road, Lumpini, Pathumwan, Bangkok Tel: (66) 2026 3779 Website : https://contact-cc.line.me/th/	Electronic money and electronic payment services	6	100	600	33.33

Notes:

³⁾ RLP is a joint Venture between AMP and Rabbitpay System Company Limited, LINE Pay Corporation started from 5th March 2018

No	Other investments	Business	Registered Capital (Million Share)	Par Value (Baht per share)	Paid-up Capital (Million Baht)	% of Investment
1	Bridge Mobile Pte. Ltd. (BMB) 750 Chai Chee Road, #03-0203, Technopark @ Chai Chee, Singapore 469000 Tel : (65) 6424 6270 Fax : (65) 6745 9453	Jointly invested, provide international roaming service within Asia Pacific Region	9	USD 1	USD 9 Million	10.00
2	Clearing House for Number Portability Co., Ltd. (CLH) 98 Q House Ploenchit Building, 6 th Floor, Ploenchit Road, Lumpini, Pathumwan, Bangkok Tel : (66) 2646 2523 Fax : (66) 2168 7744	Jointly invested, operate the information system and the centralized database for the mobile number portability service (MNP)	0.02	100	2	20.00 ⁴⁾

Notes:

⁴⁾ The equity in CSL held by AIS 10% and AWN 10%

Other significant information

Ordinary Share Registrar

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