AIS 56 Business 56

Your Trusted Smart Digital Partner

Digital Life Services for Consumer







Privileges











Future Platform for Thais







30+ years

in providing solutions for Thai businesses

> 2,600,000 **Business Connectivities**

- > 60% market share in B2B mobile
- > 50,000 links of business network
- > 30% YoY growth in cloud business

#1 with > 970,000 sub. in M2M/IoT

































































krungsr



















PEPSICO















FOUR SEASONS RESORT





















โรงพยาบาลพระรามเก้า PRARAM 9 HOSPITAL





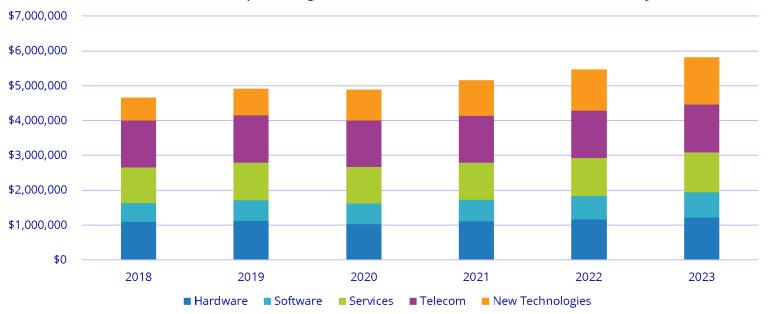


Chiva-Som





Worldwide ICT Spending 2018-2023 (\$Million, Constant Currency)



Technology Spending \$M	2018 Spending	2019 Spending	2019 Growth	2020 Spending	2020 Growth
Hardware	\$1,084,908	\$1,112,452	3%	\$1,021,966	-8%
Software	\$546,864	\$601,579	10%	\$590,224	-2%
Services	\$1,027,967	\$1,080,681	5%	\$1,053,286	-3%
Telecom	\$1,345,272	\$1,351,481	0%	\$1,339,556	-1%
Traditional ICT	\$4,005,011	\$4,146,194	4%	\$4,005,032	-3%
New Technologies	\$653,808	\$766,521	17%	\$891,760	16%
Total ICT	\$4,658,819	\$4,912,715	5%	\$4,896,792	0%





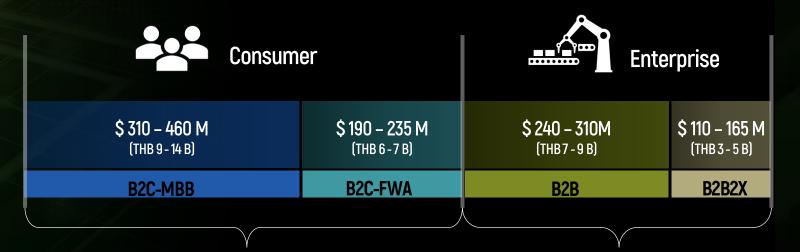
Mixed in Global Trends of ICT Spending

Increase in new technologies but negative growths in traditional ICT: Telecom, Hardware, Software, and Services

Thailand **5G B2B**Potential Value in 2025

18 - 22 %

CAGR from 2019 to 2025 to THB 7-9B in B2B and 3-5B in B2B2X

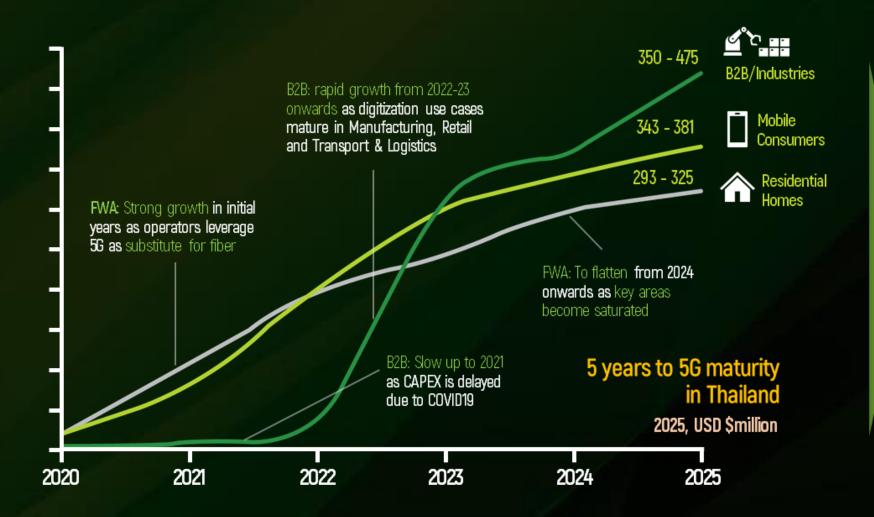


THB 15 – 21 B (60%)

THB 10 - 14 B

5G Has Potential To Generate Up To USD 1.2B by 2025;

Value Growth Is Expected To Be Initially Driven by Mobile And FWA Market



USD **950 –1.2B**

Annual revenues potential for 5G in Thailand by 2025



Advanced Info Service Plc. was established to **Operate Computer Services**

1990

OUR KEY MILESTONES

(1986-2021)



covered 77 provinces within only 8 months AIS 2.1GHz network Business Cloud

Digital for THAIS The Next **Generation Thailand**



2018

Launched **AIS eBiz** Shop, an online store

for AIS Business products and services to support enterprise and SME.



Signed an **MOU** with **U-Tapao Airport with**

Established a ioint venture

Saha Pathana inter-Holding **Public Company**



Launched AIS SME



2021

1986



1994



Received a 20-year concession from the **Telephone Organization** of Thailand

Mobile Subscribers exceeded 1 MILLION

1999

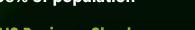
2013

3G

4G Service launched

2016

in January and cover NEXTG 98% of population



End-to-End Cloud Services for Thai Businesses

2017 NB-IoT / eMTC

Rolled out nationwide

CSL Acquisition

For Data Center & CSL

2019

Renewed business strategy of **CS** Loxinfo

and renamed to

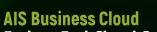
AIS5G One Stop ICT Servic



Launched AIS Cyber Secure serving enterprise customers with telco-graded CSOC

Thailand 1st 5G Mobile covered 77 provinces

with the most bandwidth frequency



ICT Services

AIS



- No.1 Mobile User & Network
- Nationwide Fiber Coverage
- Telco Cloud Infras & Services
- Unified Communication Service
- Best IoT Ecosystems
- Digital Marketing Services
- Strong Application Development Team & Platform





- Leading ICT Service Provider
- Internet Service Provider
- Carrier Neutral Data Centers
- Multi Data Center Locations
- Diversified Cloud services
- Integrated ICT Solutions
- Various of Trusted Brand ICT Partners
- Strong and Experienced Team in ICT



We serve DIGITAL TRANSFORMATION for THAI businesses

AIS CS L





(())

Fastest & Largest Network Coverage in Thailand

Network

The Most Bandwidth for Nationwide Fiber Optic Coverage

IoT

The Best IoT Solutions & Ecosystem

Digital Marketing

Effective Marketing Tools in the Digital Era



Carrier-Neutral Data Centers with
The Most Multi-location across Thailand

S ystem Integration ICT Solution Delivery

Partnership with The Most Trusted Vendors

S ervices
End-to-End Managed ICT

Professional Managed Service

Proven The BEST IoT Service Provider for Thais



Smart City



U-Tapao International Airport

Smart Building



Pearl Bangkok

Smart Village



Property Perfect

VDO Analytics



SCG Building

Telematics



Thaivivat Insurance

Core & Digital capabilities

Cyber Security & OT Security



Cloud Infrastructure



Telco, Video, Social & Customer Data Analytics



Sensors & IOT Management



Geographic Information System

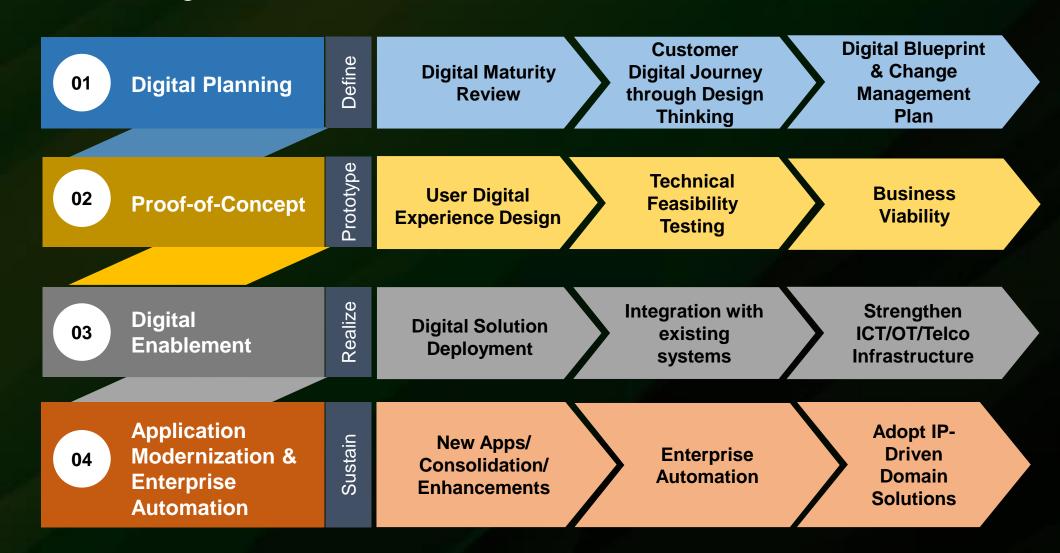


Al, Machine Learning, RPA



We Help Organizations Embark on Their Digital Journey at Various Stages of Transformation





AIS Business Partnership Framework

DIGITAL TECHNOLOGY

Partnership

ICT

IoT

Cyber Security

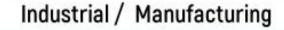
Cloud / Data Center

Enterprise Mobility

5G

INDUSTRY EXPERT

Partnership



Financial / Banking / Insurance

Property / Real Estate

Automotive

Transport / Logistics

Trading / Retail

Energy / Utilities

Healthcare

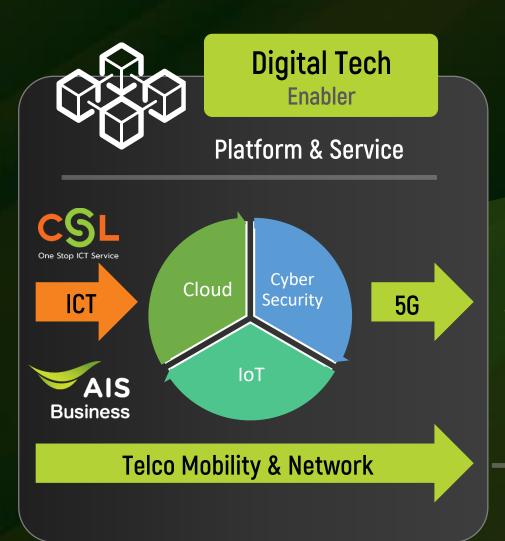


AIS Enterprise Business Vision

The Most Trusted ICT & Digital Enabler/Accelerator for Businesses



Digitalize your business with ICT infrastructure & services from AIS business & subsidiaries and partners









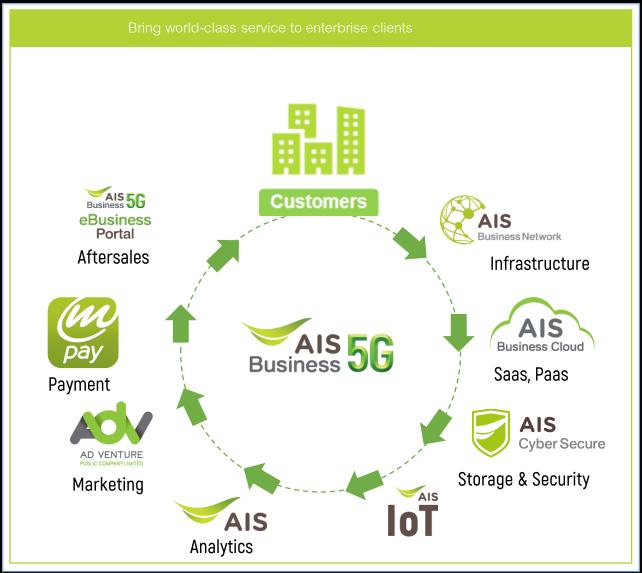


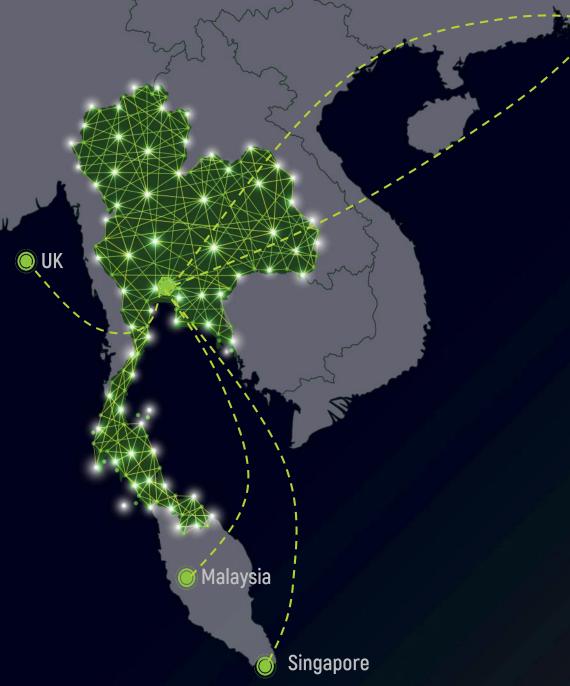




Develop ICT services with selective leading partners to build competitive edge









Most Extensive Network

Fiber Optic Nationwide

Hong Kong

> 160,000 km. > 2.9 Tbps

International Bandwidth

> 1.85 Tbps

Most NIX Bandwidth

With YoY Fastest Growth

> 60 %

- Domestic/International Data Circuit PoPs at Singapore, Hong Kong, Malaysia, UK and US with Gateways to all neighbor countries
- Microsoft Edge Node on AIS Network Partnership for Microsoft Cloud Services



End-to-end services fulfilling business data communication in various types.



Domestic Data Circuit



International Data Circuit



Corporate Internet



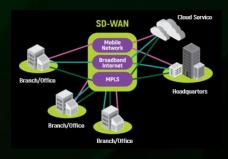
Cloud Express Connect



Bandwidth on Demand



Managed Network Service



SD-WAN



5G



eFTTx



AIS protects you with Telecom-graded Cybersecurity

World Class Cyber Security
Partners



Device Security



Network Security







The One and Only Provider who provides E2E Cybersecurity Services

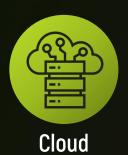
from Infrastructure



to Cybersecurity

AIS Cyber Secure Platform





























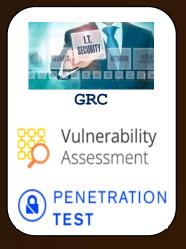












Our Partners

CSL











Our Partners

























































Managed ICT Services

End-to-End Services from Consultancy, Setup, Migration, & Managed Services



Software as a Service

Digitally Transform Your Business Communication & Collaboration



Security Service

International Cloud Service Certified with more Network Security Services



Infrastructure / Platform as a Service

Enhanced Infrastructure of Multiple Cloud Platforms for Your Business Efficiency



Data Centers

More Regional Data Centers with Global Security Certification



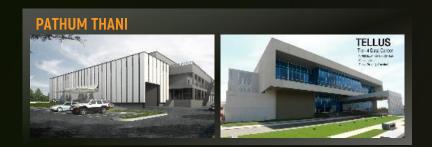
Fiber Networks

Largest Nationwide Network with Flexibility to Scale up for Your Cloud Usage

The Most Multi-locations

Data Centers across Thailand

with more than 5,000-rack capacity





































High Speed

Data Center
Interconnection

up to

100 Gbps

Network



- High speed data center interconnection
- Full network redundancy
- The largest domestic bandwidth



One Stop ICT Service



Carrier Neutral Data Center

Network Readiness: ALT Telecom, CAT, Interlink, JasTel, Symphony, TOT, TRUE, UIH and AWN

AIS Business Cloud Ecosystem



Security Service

Trustwave*

Workspace ONE™

IBM MaaS360

SAMSUNG Knox

mobileiron

11 111 11

CISCO



Managed Data Center

Smart Hand Service Monitoring Service



Managed Cloud services

Consultancy & Assessment Solution Design Migration & Implementation 24*7 Service Monitoring

Professional services

Backup & Recovery
Open-Source Service Support





Productivity



Robotic Process Automation



Media Cloud Service



Data Analytics





Backup as a Service



Enterprise Object Storage



DevSecOps Platform



Public Cloud











HUAWEI CLOUD



Data Center



On-premise/ Private Cloud









CLOUDFLARE





Connectivity Services





Manage /

Support

Build /

Deploy

Life Cycle ICT Managed Services

ICT

Services

Consulting

Solution

Design

& Assessment

Operations &

Managements

Implement



Strategy

Architect

Managed Network Service

- Managed LAN/WAN
- Managed WIFI
- Managed SD-WAN
- Hotel WIFI



Managed Data Center

- Site Relocation - Smart Hand Service
- Hosted solutions - 24/7 NOC



Managed Private Cloud

- Install/ Relocate Hardware - Onsite Service
- Remote Troubleshooting
- 2nd tier Engineer Support
- Backup and DR Solutions



Managed Cloud Service

- Cloud Migration/ Consolidation
 - Backup as a Service
- Office 365 Managed service
- DR as a Service



Managed Security Service

- Managed On-premise Firewall - Secured Mail Gateway
- Centralized Firewall on Cloud - Managed Endpoint Security



Managed ICT Service

- Outsource IT Operation & Maintenance
- Monitoring & Optimization

- Integrate solutions
- Level 1/2/3 support



3 Years in a Row 2018–2020 IoT Service Provider of The Year



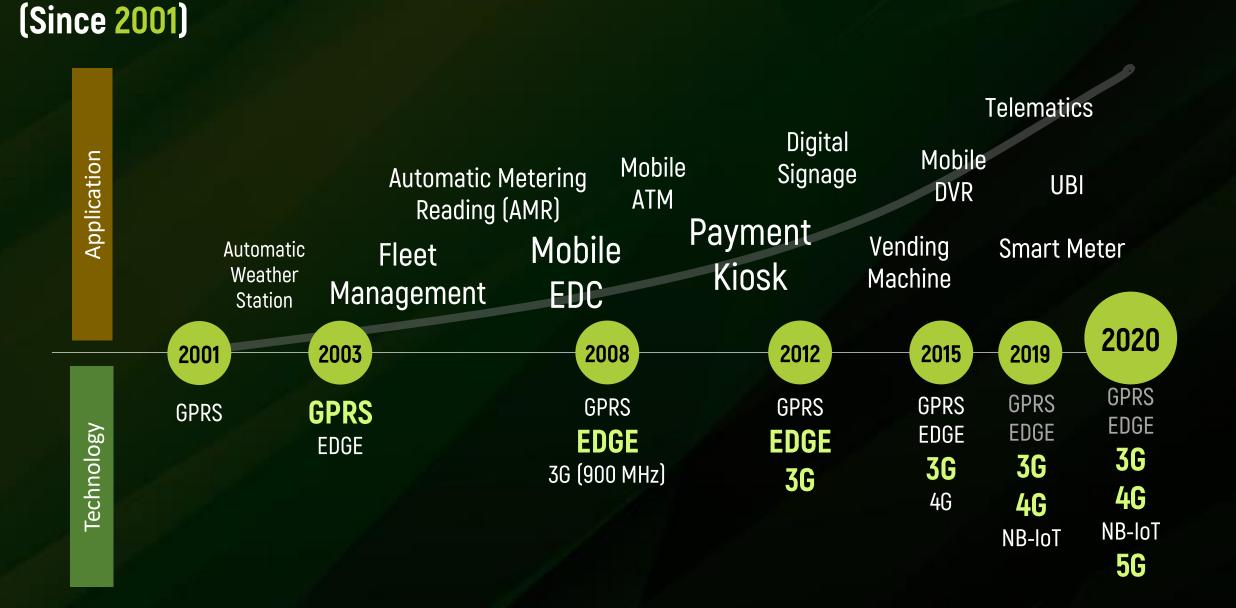




Thailand's BEST Practice Award from Frost & Sullivan

19 Years in Thailand's M2M/IoT





Thailand's BEST IoT Service Provider





Devices

- NB-IoT Shield
- NB-IoT Xbee
- Embedded SIM
- IoT Sensors
- IoT Modules





Network

- NB-IoT
- eMTC
- 3G / 4G / 5G
- Fiber





Platform

- Magellan
- Playground
- Connectivity Platform
- Telematics Platform
- Smart Living Platform





Solutions

- Smart Transportation
- Smart Logistics
- Smart Property
- Smart City





Ecosystems

- AIAP
- Product Development
- Business Partnership
- Business Matching



Thailand's IoT Opportunities







2018

Year

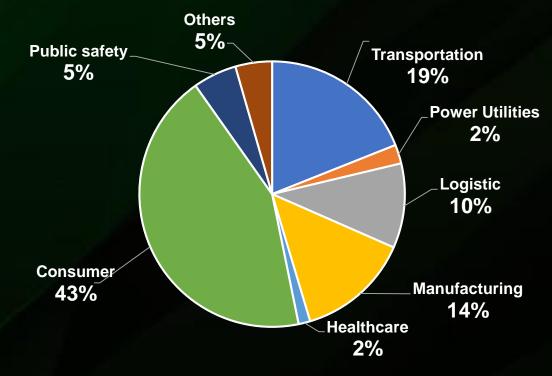
2019

2020

2016

2017

IoT adoption in Thailand has been growing fast in both consumer and business sectors. The country's spending in IoT will reach 1,377 million USD by 2020, mostly in Consumer segment, followed by Transportation, Manufacturing, and Logistics respectively. One reason that drives the growth of IoT market is Thailand's readiness in network infrastructure, (NB-IoT, LoRaWAN)



Source: Frost & Sullivan

Thailand's M2M/IoT Connectivities 2020



Total 1.338 M Connections 23% YOY Growth Connections



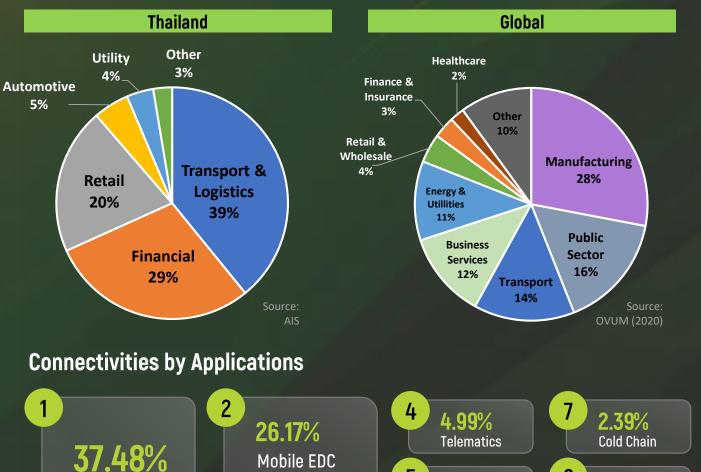
Fleet

Management



4.38%

Other



18.00%

(Payment &

Kiosk

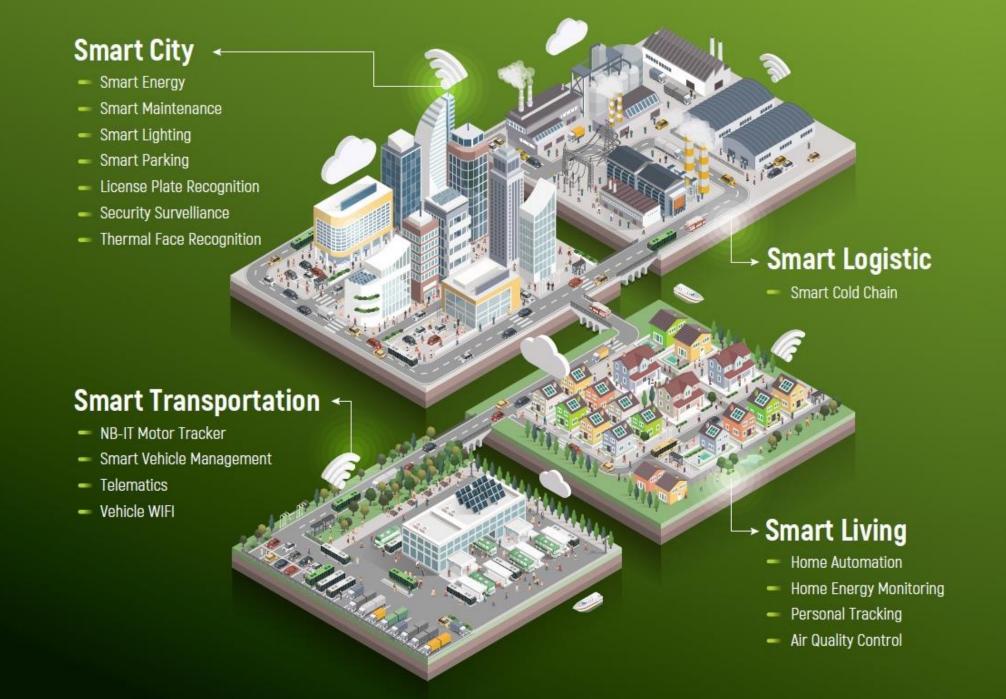
5

3.75%

2.84%

Mobile ATM

Smart Meter



56 is not just FASTER, but a NEW PARADIGM



eMBB



Enhanced Mobile Ultra-relial Broadband latency Co

Providing mobile network customers and industrial user with enhanced capabilities, benefiting B2C, entertainment and media, and other service sectors

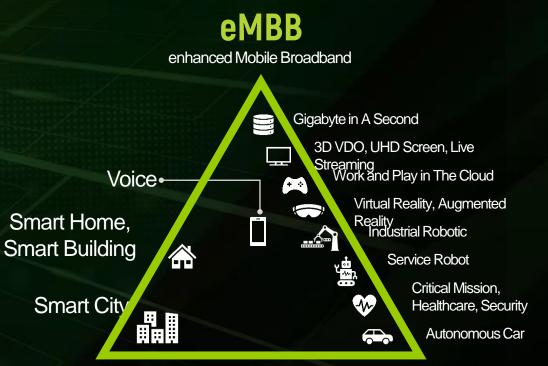
Ultra-reliable & Low-latency Communication

Supporting new use cases in mission critical applications (e.g. autonomous driving, remote surgical operation, industrial automation)



Massive Machine-type Communications

Enabling industry players to connect massive numbers of devices with specific connectivity requirements, in sector such as manufacturing, utilities, and logistic.



mMTC

Massive Machine
Type
Communications

URLLC

Ultra Reliable Low Latency
Communication





56 Vertical Solutions

End-to-End Solutions & Use Cases (Smart Factory, Smart Transportation & Logistics)



56 Horizontal Solutions

- AR/VR
- AI Artificial Intelligent
- Video Analytics
- Robotics









Infrastructure & Platform

- Enterprise 5G Private Network
- Enterprise 5G Fixed Wireless Access
- 5G Network Slicing
- Multi-access Edge Computing
- 5G Spectrum
- 5G Coverage
- 5G Devices
- 5G Mobile Packages











5G Mobile

The New 5G Digital Ecosystems

Edge Computing



IoT → Edge → Connectivity → Cloud



Guiding

helmet

Robot



Al GPU rendering

Drone management

Cloud computing Guide cloud

Language processing Safe city

Machine vision Medical cloud

Thin Clients:

Low cost, easy to deploy, easy to manage, mobility

Cloud VR

Cloud AR

100+ Mbps, up to 5ms eMBB uRLLC

One cloud for multi-use:

Not only serve Cloud Gaming, cloud PCs, Cloud Gaming, but also services car, health, drone, etc.

5G2B

Infrastructur e & Platforms **Private Network**



Providing dedicated network to optimize and secure to meet specific needs of vertical application

5G MEC

Multi-Access Edge Computing



Enabling cloud computing capabilities at the edge of mobile network to reduce the physical distance of

communication

5G NR



Core Network

5G FWA

enterprise **Fixed Wireless** Access



Providing more convenient to set up high performance and secure enterprise broadband network without a regular fiber network

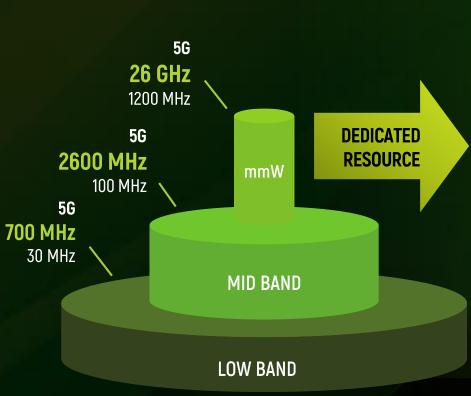
Network Slicing



Creating pre-defined, differing levels of services to serve enterprise vertical requirements

5GPrivate Network

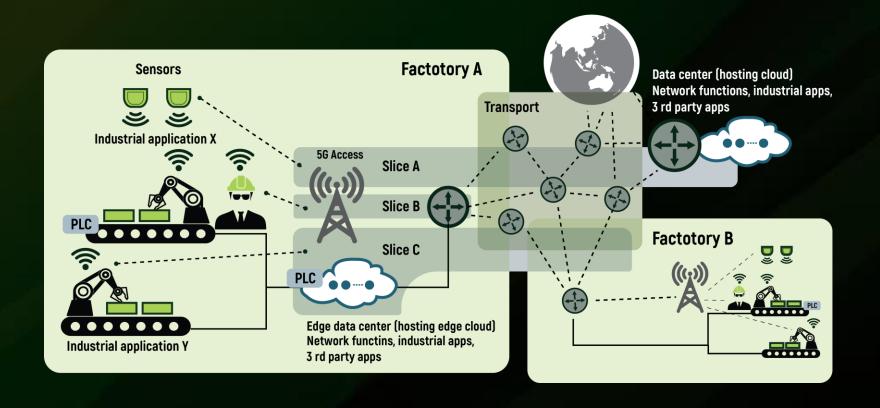
- Dedicated Network
- High Reliability
- High Bandwidth with Ultra Low Latency
- Strong Data Security





5GNetwork Slicing

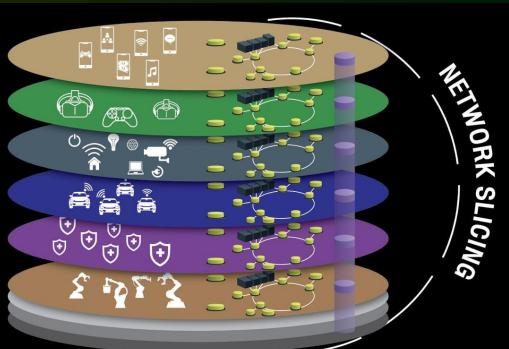
Creating pre-defined, differing levels of services to serve enterprise vertical requirements



Source: ZVEI

MULTIPLE NETWORKS WITHIN ONE NETWORK

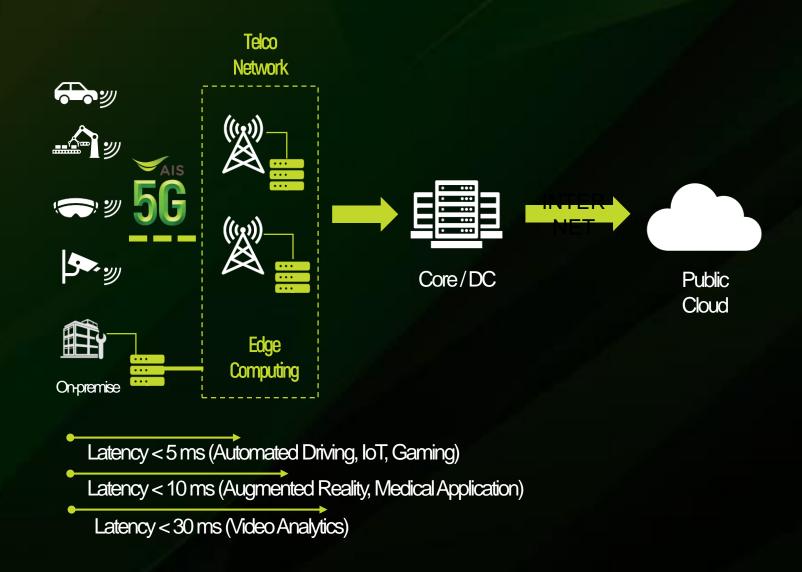




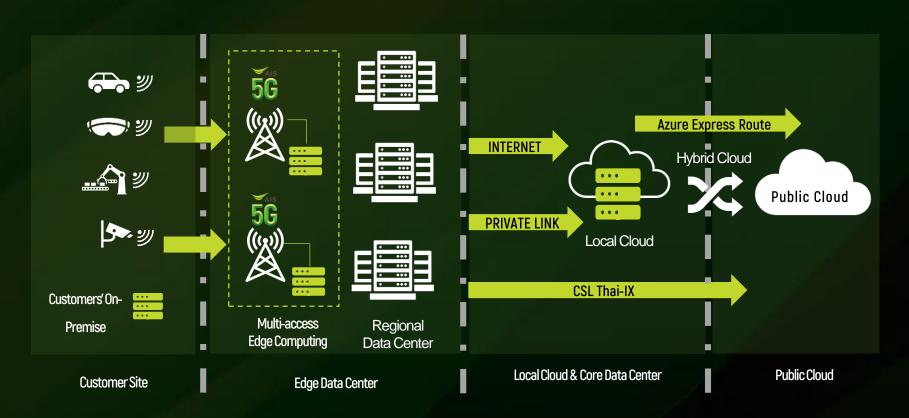


What is EDGE COMPUTING

Brings the computing resources closer, so that devices can access the back-end services MUCH FASTER



The Complete 5G Ecosystem for New Business Applications



- Commercial 77 Province 5G Network Coverage
- The Most Multi-location

 Data Centers across Thailand
- Open Collaboration Ecosystem
- High-Capacity Interconnection
 Network
- Integrated Hybrid Cloud Infrastructure
- One-Stop ICT Services

AIS 5G Ecosystems & Partnerships

Technology Enablement























DoubleMe ⊗PICO VZX



Network Operators bridge Singtel docomo kt











Education - Research & Development













































































77 Provinces
Commercial
56 Network
SA/NSA Dual
Network



The most
bandwidth
in Thai
World's Bestin-Class 5G



Thailand's Leading
in 5G R&D
Exploring & Trial
with Commercial
Use Cases

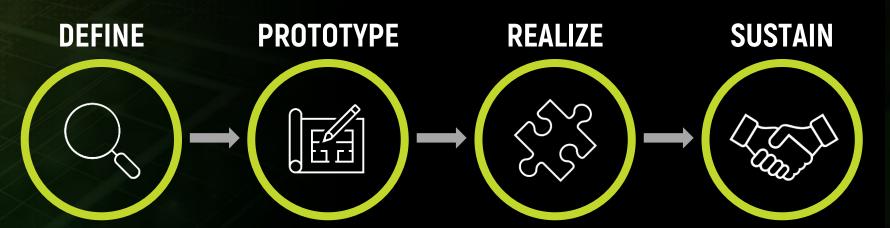


Enhanced
Network
Capability
Network
Slicing,
Private
Network,
eMBB,
URLLC,
mMTC



Full Range
of IoT
Ecosystem
Full-stack
5G & IoT
Ecosystem

AIS 5G2B Joint-Development & Partnership



- Digital maturity review
- Customer digital journey through design thinking
- Digital blueprint & change management plan
- User digital experience design
- Technical feasibility testing
- · Business viability

- Digital solution deployment
- Integration with existing systems
- Strengthen ICT/OT/telco infrastructure

- New apps/ consolidation/ enhancements
- Enterprise automation
- Adopt IP-driven domain solutions

AIS 56 Business 56

Your Trusted Smart Digital Partner