





#### **MESSAGE FROM EXECUTIVES**

#### **Concept and Nature of Business**

Established in 2010, Grandline Innovation Co., Ltd. conducts its business with a commitment to three management principles: advancement, quality and ethics which have driven the company's continuous and sustainable growth.

The "Advancement" component is ensured by the company's executives who operate the business and run all projects using cutting-edge equipment, tools and technology for the optimum benefit and maximum satisfaction of our clients. Since most of our clients are government agencies, our advanced tools, equipment, and technology have contributed significantly to supporting national development.

"Quality" also forms the basis of our business operations. We have ensured that our products and services meet the ISO 9001 standard when they are delivered to our clients. We have designed our quality policy around the concept of "initiating quality innovations, creativity and environmental protect on for the maximum benefit and satisfaction of our clients". This policy forms the guideline for the company to strictly control our product and service quality. With this passion for quality, we can rest assured that our products and services are trusted by our clients and can support and further enhance national development across all dimensions.

"Ethics" is the third pillar of our management principle. We strongly believe that a good company must be sincere and honest both in its business operations and towards related parties. We have instilled this belief in all our executives and employees, cementing it as the true corporate culture adopted by everyone in the company and promoting high-quality and breakthrough innovations of services and products delivered to our customers.



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#### **VISION**

"To become a leading company that delivers valuable innovations and advanced technology to improve the country's infrastructure and achieve sustainability."

#### **MISSION**

"We have a strong determination to create smart innovations that deliver maximum satisfaction to our clients according to good corporate governance principles and sustainable growth. We are committed to promote the development of an innovative organization, focus on an increase in employee's competency and capability, a commitment to delivery professional services and to enhancing a strong business structure."

#### **GOAL**

"Grandline Innovation Co., Ltd. will become a leading information and communication technology service provider and a supplier of crucial technology and equipment that is of high quality, functionality and practicability to support the country's sustainable development."

#### **BUSINESS DIRECTION**

Grandline Innovation Co., Ltd. operates an information and communication technology (ICT) infrastructure development business, in line with its belief that technology disruption brings with its huge business opportunities. The private sector plays an important role in developing and adopting related business activities, such as software and hardware development. The private sector's attempt to enhance corporate competitiveness is in line with the government's "Thailand 4.0" policy, aiming to increase national competitiveness through the implementation of strategies that lead and drive the economy through innovations.

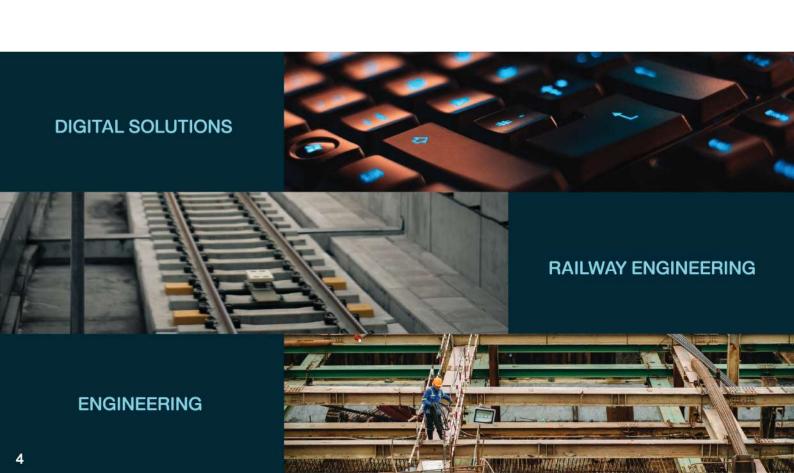
The company is committed to be a part of ICT development in both the government and private sectors. This will enable the country to move forward progressively backed by relevant and high-quality innovations and to grow well in a climate of rapid change.

#### **COMPANY HISTORY**

Grandline Innovation Co., Ltd. was established on 7 January 2010 with Bt 20 million registered capital. The company provides consultancy services in flood prevention, water management, environmental system planning and electrical engineering consulting.

With technology developing rapidly, business have been forced to adjust business directions by applying technology, digital systems, and innovations to their operations. The government sector has realized the importance of such changes and thus introduced the "Thailand 4.0" policy, designing new strategies to support such a policy. As part of this move, the government has initiated the high-speed train project and the dual track development project. The State Railways of Thailand (SRT) has also introduced a policy to expand the long-distance rail system network, representing a significant investment in the transport system to support national development. Foreseeing new business opportunities arising from this development trend, the company has set up the Digital Solution Business Unit and the Railway Engineering Business Unit to support the country's strategic development.

In 2019, the company increased its registered capital from Bt100 million to Bt 200 million to ensure the company is ready for future projects. These cover the following



#### DIGITAL SOLUTIONS

- Private Cloud & Hybrid Cloud Solution
- Communication and Security
- Big Data Solution

#### RAILWAY ENGINEERING

- Signaling System and Train Telecommunication System
- Power Supply System for Trains
- Power Supply System for the Signaling System

#### ENGINEERING

- Substation Construction Service
- Construction and Laying Underground Cable Systems
- Construction and Laying Underwater Cable System

#### **DIGITAL SOLUTIONS**

GLi provides installation and consultancy services related to digital technology customized to client's requirements as follows

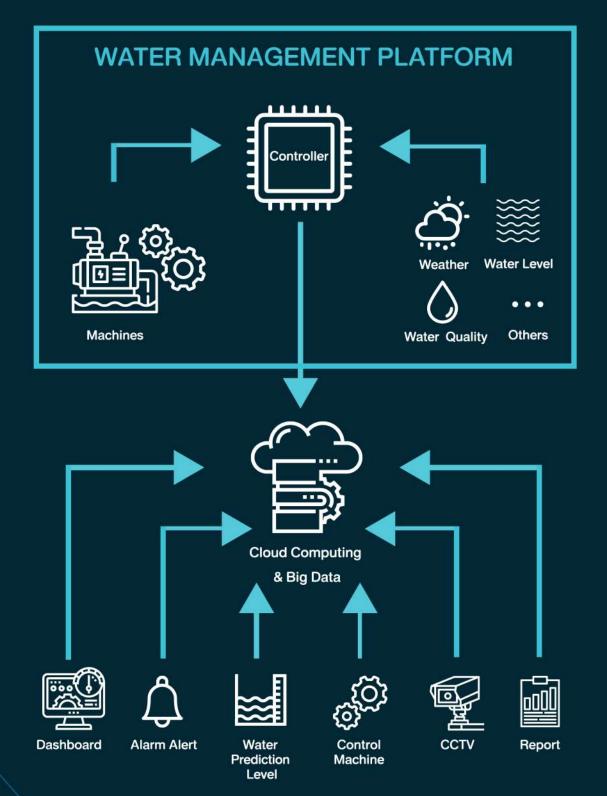
Private Cloud & Hybrid Cloud Solution provides comprehensive services in Private Cloud & Hybrid Cloud Professional Service to meet the customers requirement. GLi has the professional team who will participate in every step of the process, from consulting and laying out the guidelines for the appropriate Cloud that has the most benefits from the Cloud, including after-sales maintenance services to ensure that the Cloud is ready to use all the time.

Communication and Security The service cover from the network infrastructure to the security of the application, which is related. When there is a problem, it inevitably affects the overall use. Therefore, the design must be considered in every area. GLi aims to create the best user experience from our communication systems experience as well as large-scale security.

Big Data Solution when collecting, filtering, analyzing, and processing a variety of data with the tremendous amount are complicated and complex matter, which require cooperation between the data owner with data management and analysis experts who are working together. GLi is ready to be a part in designing, installing, maintaining the system with the experience, as well as providing consultancy services related to Big Data Solution.

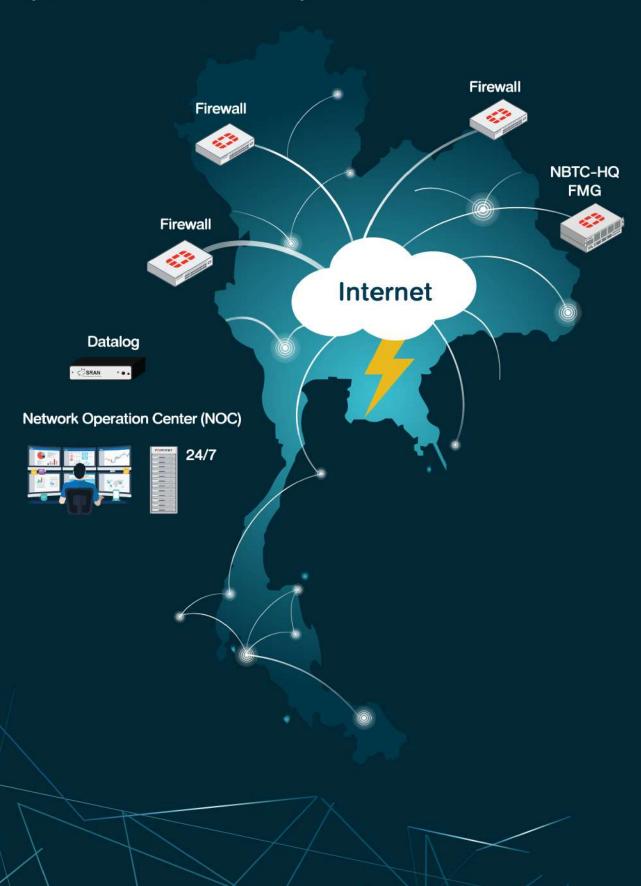






## System Diagram

(Current Version)



# RAILWAY ENGINEERING



#### **RAILWAY ENGINEERING**

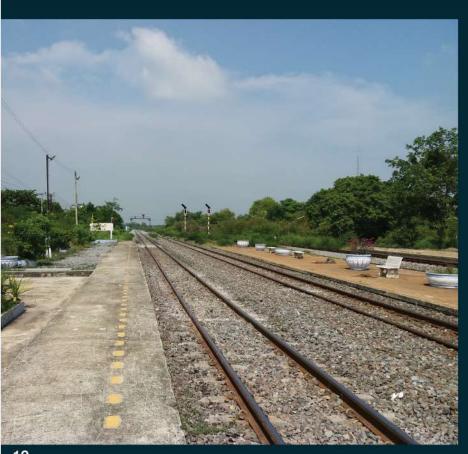
GLi provides installation, test signaling systems and power supply systems as follows:

#### Power Supply System for the Signaling System

UPS and Generator

#### Power Supply System for Trains

- Traction Power Supply
- Auxiliary Power Supply
- OCS Overhead Catenary System
- Third Rail System



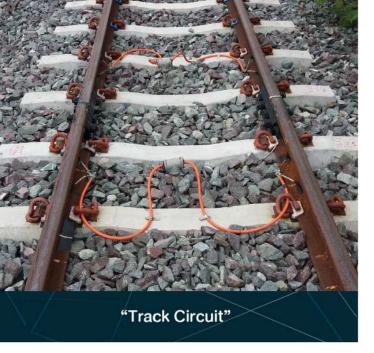


#### Signaling System and Train Telecommunication System

- Signal and Location Cabinet
- Switching Device Point
- Track Circuit and IRJ Insulated Rail Joint
- Level Crossing System
- Arial and Buried Cable
- ARI & CBI All relay Interlocking and Computer Base Interlocking
- ETCS European Train Control System
  - ATP Wayside
  - ATP Train Borne
  - Track Data Collection and Surveyne
- Network and Telecommunication System
- SCADA

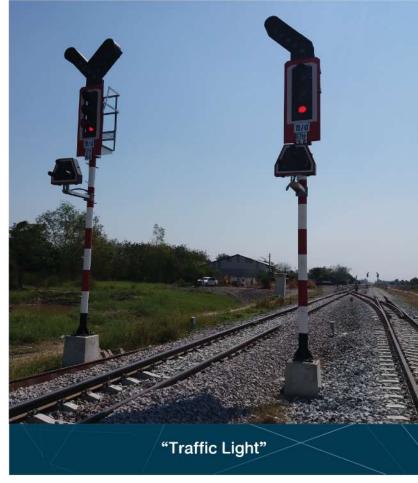




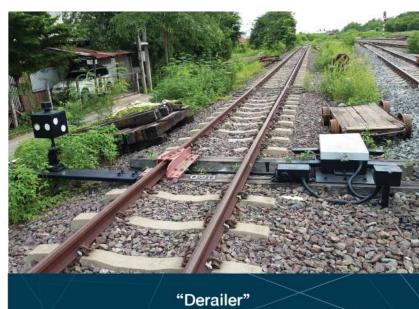












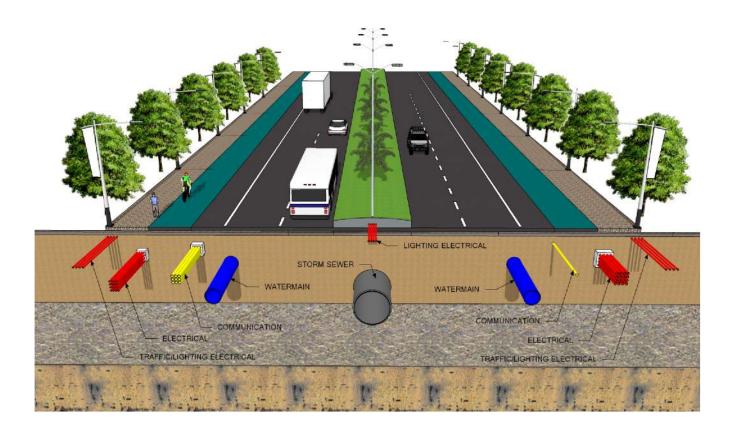
"Signal and Location Cabinet"

#### **ENGINEERING**

GLi offers turnkey electrical engineering solutions, covering design, sourcing, building and installing electrical engineering works. Our turnkey projects are categorized by nature of work as follows

#### **Underground Cable System**

Electrical pipes and conduits for underground high-voltage electricity transmission lines between power stations and a low-voltage transmission system to different types of users are ideal for areas where there is not enough space for overhead cables, such as in big cities, densely populated communities and places where the environment and landscape are under conservation.



"DUCT BANK FOR UNDERGROUND POWER CABLE 22 kV SUBSTATION"

#### **High Voltage Substation**

Electricity from the generation plant will go through substations for voltage adjustment before being transmitted through a high-voltage transmission line and electricity distribution system for distribution to different types of users including manufacturing plants, communities, and houses. There are two types of substations: Air Insulated or Conventional Substation (AIS) and SF6 Gas Insulated Substation (GIS).



#### High Voltage Transmission Line System

From power generation sources, such as dams, thermal power plants and hydro power plants, electricity are transmitted to a power station or between stations through a high voltage transmission line system to remote areas. The voltage of high voltage transmission line system varies from 115kV to 500kV.









"FIRE BARRIER SYSTEM"

"H.V. POWER CABLE 22 kV SUBSTATION"



"22 kV SWITCHGEAR
22 kV SUBSTATION"



"AC-DC DISTRIBUTION BOARD
AND 125 VDC BATTERY CHARGER"
22 kV SUBSTATION

## **Project Portfolio**

Multi-purpose Vehicle Multi-One Control all Functions with more than 170 types of connectors

• Construction • Agricultural • Maintenance • Forest • Landscape Adjustment



#### **Environmental Engineering Project: Portfolio of Waste Management Systems**







Bin Lifter

## **Customers**







Internal Security Operations
Command: ISOC



Provincial Electricity
Authority: PEA



Royal Irrigation Department



Bangkok Metropolitan Administration



Department of Public Works and Town & Country Planning



Bangkok Fire and Rescue Department



Samut Prakarn Provincial Administration



Ayutthaya Provincial
Administration

### GLi Map



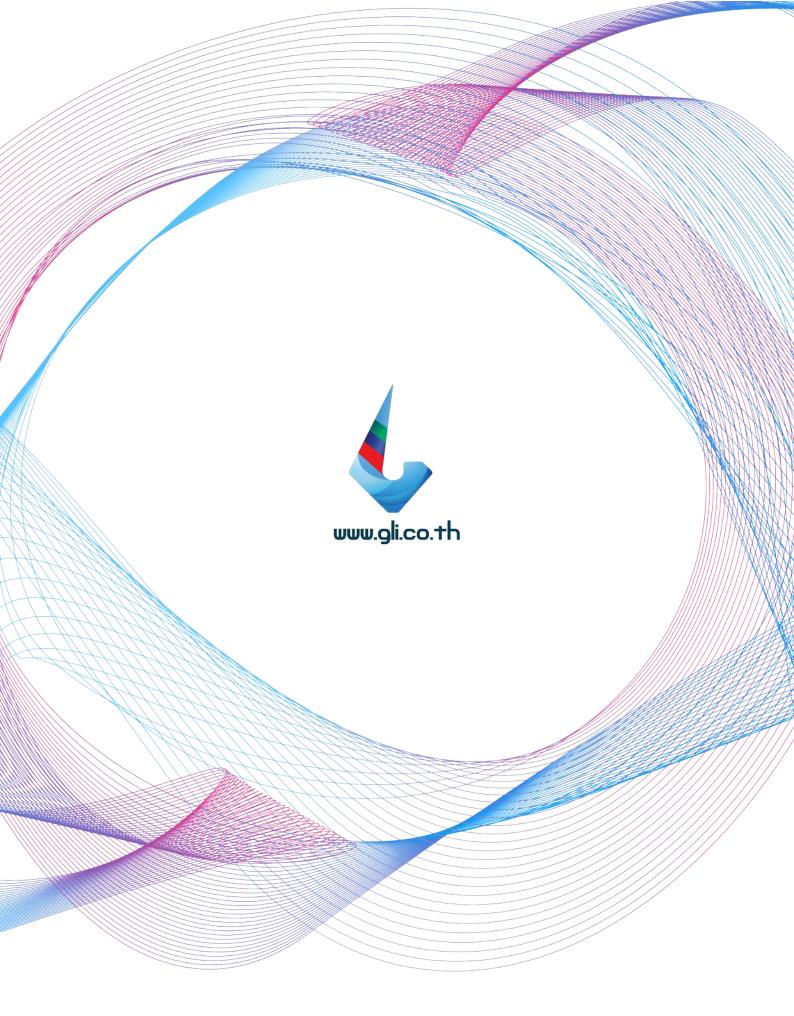


Grandline Innovation Co., Ltd.

333 Soi Ladprao 64 Yak 12, Ladprao Road, Wangthonglang, Bangkok, 10310 Thailand.

Tel: +66 (0) 2 539 7999 Fax: +66 (0) 2 538 1195





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