

For the prevention of accidents and safety of industrial workers



# Smart Industrial Safety Sensor Device System Manufacturing and Service Platform

A technology leader in the field of IoT-based industrial safety smart sensor devices

**2022. 11. 9**  
**ELSSSEN CEO : Park Ji Man**

**parkjm@elssen.kr**



# CONTENTS

I. **Construction Safety Introduction**

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II. **Construction Safety Smart Sensor Device System**

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III. **About Company**

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# Background and Purpose

## Occupational Safety and Health Act



- **Social demands for safety in the construction industry**
- Demand for solutions through technological advancement

In order to secure the safety of industrial sites, we want to realize accident prevention by building a high-tech IoT construction industry safety platform.

Technical requirements for safety in the construction industry.

- . Fall Accident Prevention
- . Prediction and alarm of hazardous situations for workers
- . In case of an accident, respond quickly to emergency situations

## Serious Accident Punishment Act

→ Safety in the construction industry.



# A List of Industrial Safety Equipments

## The three major safety goods



**Safety hook**

→ **Smart safety hook**

**Safety helmet**

→ **Smart safety helmet**

Safety shoes

→ Smart safety shoes

- Additional use of wearable sensor devices to protect industrial site safety products and industrial workers' safety.
- It's intended to monitor the abnormal use of safety helmets and safety hooks at industrial sites in real time to induce safe use.



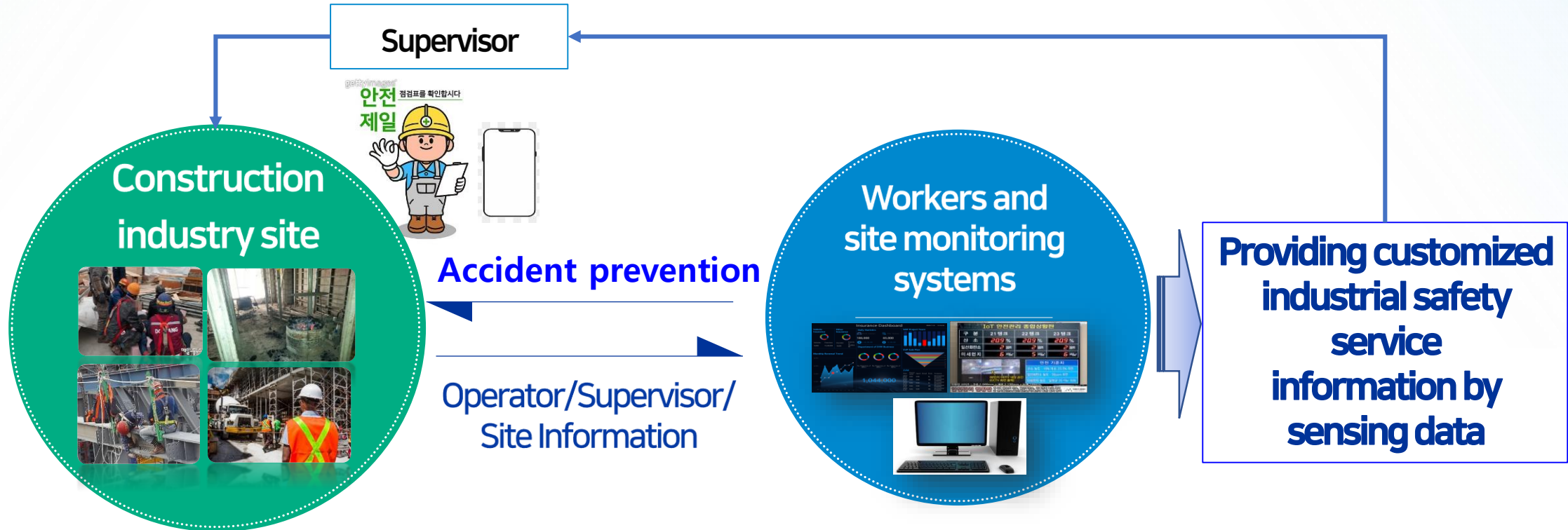
**Wearable sensor device**



# Industrial Safety System Platform



## Secure industrial sites with advanced IoT systems



1. IoT safety hook system to prevent fall accidents
2. IoT helmet System for Worker Accident Prevention
3. IoT wearable system for worker health
4. **Reliable IoT wireless network system**





# Industrial Safety Devices and Service Systems



**IoT sensing**

**IoT sensing information**  
Primary Collection and Situation Alarms

**Industrial site gateway(1~n)**

**Industrial site LTE gateway**

**Device system Deployment**

Fastening of safety hooks,  
not fastened  
(defective tightening)



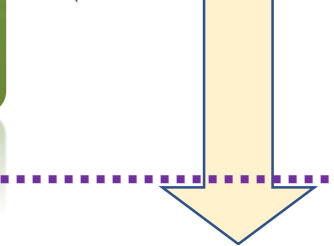
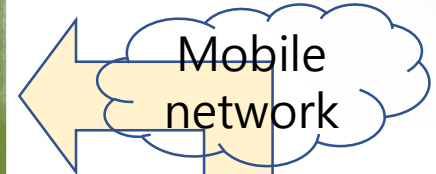
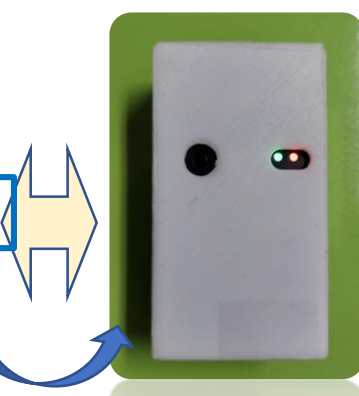
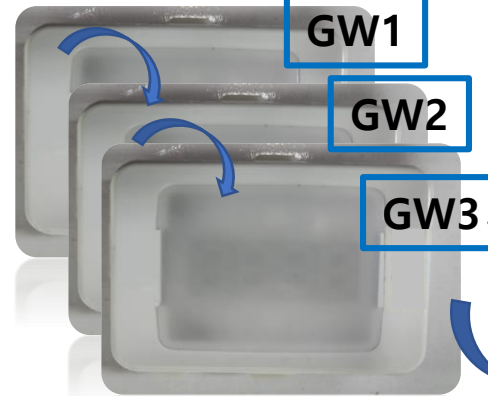
Wearing or  
not wearing  
a safety helmet  
(defective wearing)



Wearable (when used)  
Physical condition normal,  
abnormal



Operator Wearable Device  
(Worker Gateway)



Dashboard



**Service Deployment**

App



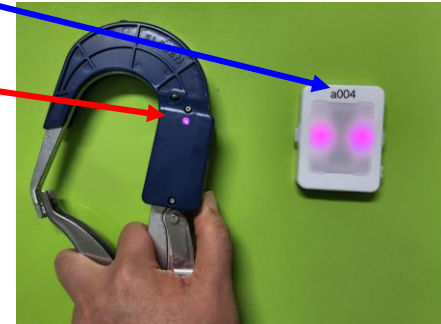
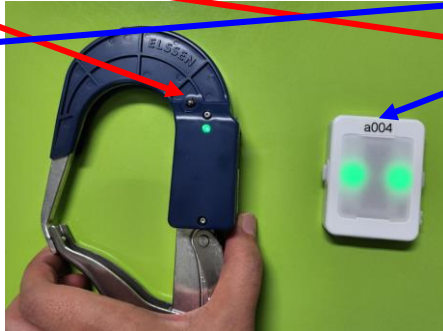
Elssen, Server and DB

# Industrial Safety hook Sensor Device System



Safety hook sensor device

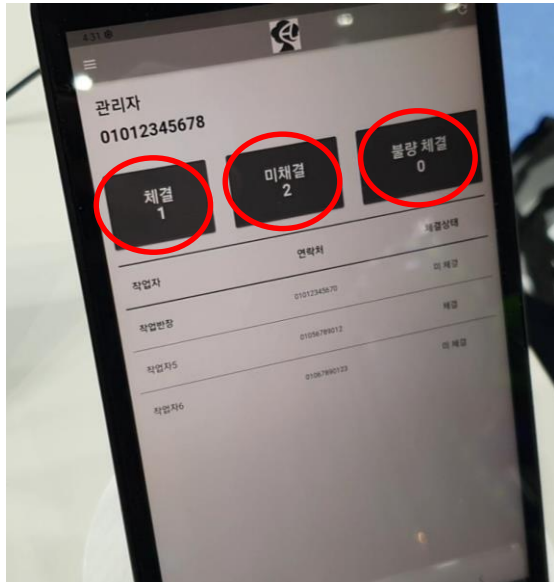
Worker wearable devices (worker gateway)



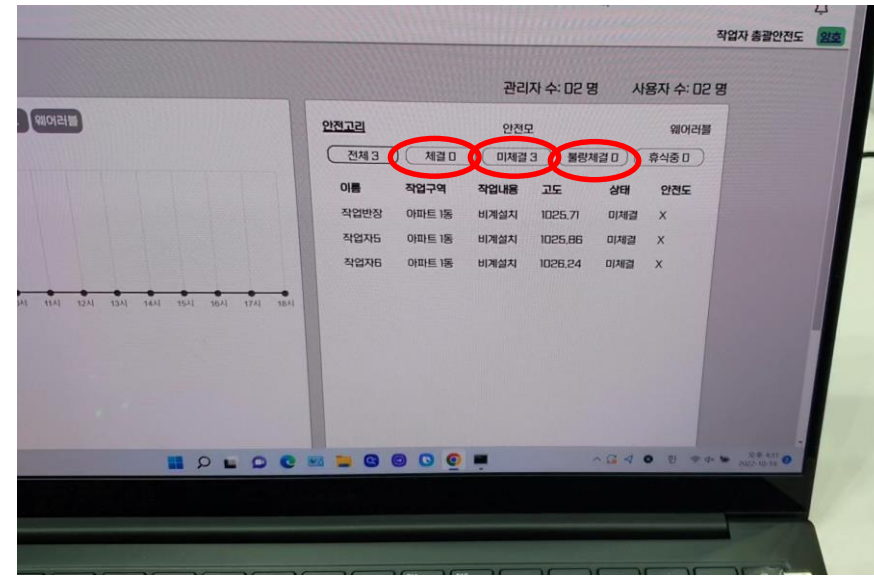
Self-hook pending status

Self-hook tightening status

Self-hook poor engagement status



Admin app



Control room dashboard

# Industrial Safety Alarm System

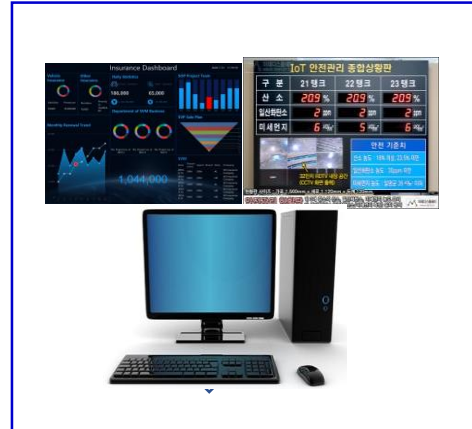


## Five-step safety notification provides the solution : **Elsafe Q!**

IoT safety equipment usage status



Industrial site situation (real-time monitoring)



Construction company



Safety level (Step 5)

1. Safety
2. Attention
3. Caution
4. boundary
5. Accident



Collect, store, and analyze worker and site information = Judgment

Calculation of worker safety by sensing data of IoT safety products



# Industrial safety alarm service



## Five-step safety notification provides the solution : Elsafe Q!

**Control room dashboard**

000 공사 현장    홍길동    Logout    Setting

Today 2022-09-09 목요일 / 금성백조 / 도안지구    총 관리자수 5    총 작업자수 5

근로자    작업환경    중장비

근로자 안전 상황판    작업자 총괄안전도 **양호**

**안전고리**

심각, 경계, 주의, 관심, 양호

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**안전모**

심각, 경계, 주의, 관심, 양호

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**웨어러블**

심각, 경계, 주의, 관심, 양호

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**안전고리**    안전모    웨어러블

체결 44    미체결 44    불량체결 44    휴식중 44

이름	작업구역	작업내용	고도	안전도
홍길순	1동	외벽공사	3m	양호
홍길순	1동	외벽공사	3m	양호
홍길순	1동	외벽공사	3m	양호
홍길순	1동	외벽공사	3m	양호
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홍길순	1동	외벽공사	3m	양호
홍길순	1동	외벽공사	3m	양호

**Admin app**

관리자 01012345678

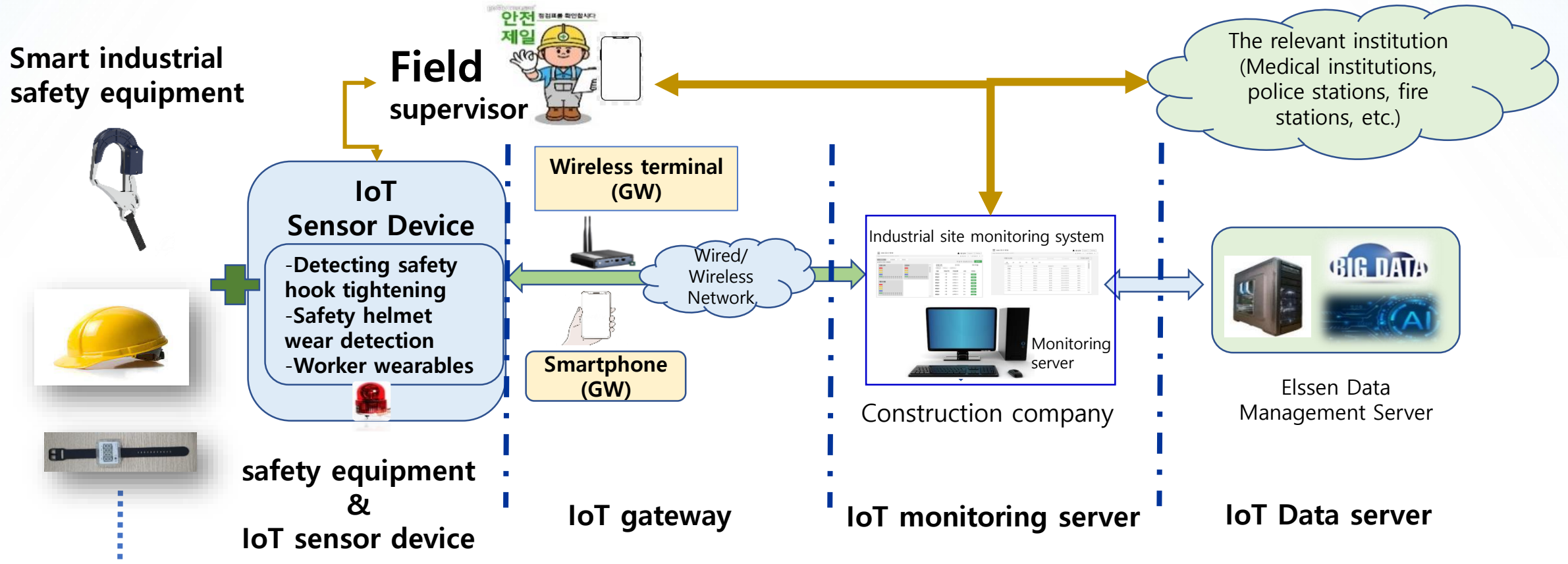
체결 2    미체결 1    불량체결 0

작업자	연락처	체결상태
작업반장	01012345670	체결
작업자5	01056789012	미체결
작업자6	01067890123	체결

# Industrial Safety Service Platform



## Elssen Industrial Safety Platform : Elsafe Q!



# Company Introduction **Elssen**, a leading IoT industrial safety service platform



## > IoT sensor device system manufacturing and service platform company

분류	내용
Company name/date of establishment	Elssen Inc. / 2015. 04. 06.(Date of establishment), 7 years since founding
CEO	Park Ji-man
Address	No. 435, Hanshin S MECA, 65, Techno 3-ro, Yuseong-gu, Daejeon, Republic of Korea
Business area	Manufacturing and selling IoT sensor devices in industrial safety, health & environmental care
Main products	IoT industrial safety system (fall accident prevention safety hook system, gas accident prevention system, worker wearable sensor device, etc.)
Homepage	<a href="http://www.elssen.com">www.elssen.com</a>



# Company Introduction **Elssen**, a leading IoT industrial safety service platform

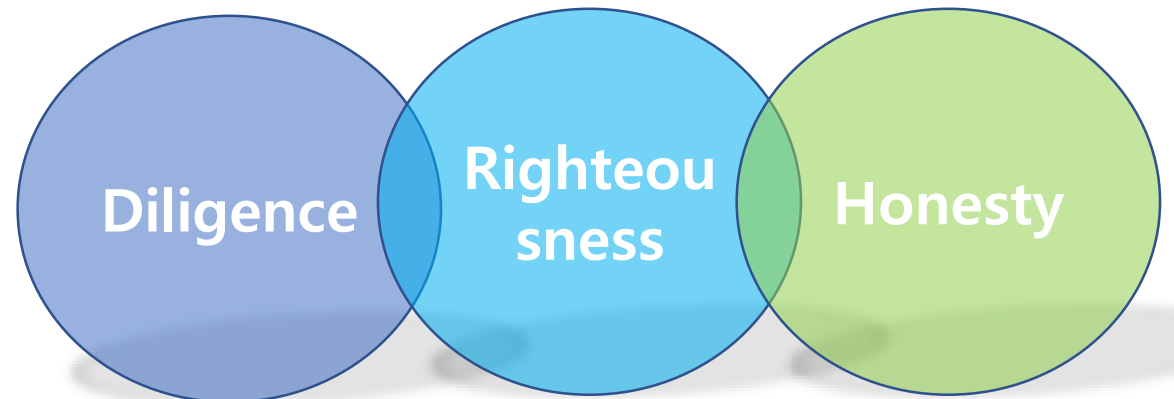


> IoT sensor device system manufacturing and service platform company

## ★ Vision

- Industrial safety! Leading IoT Sensor Device Company
- Time to Market, Customer-tailored service platform company
- A company that grows together through networking

## Corporate philosophy





# Thank you

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