

Efficient Optical Fiber Maintenance Using the “Pole Search System”

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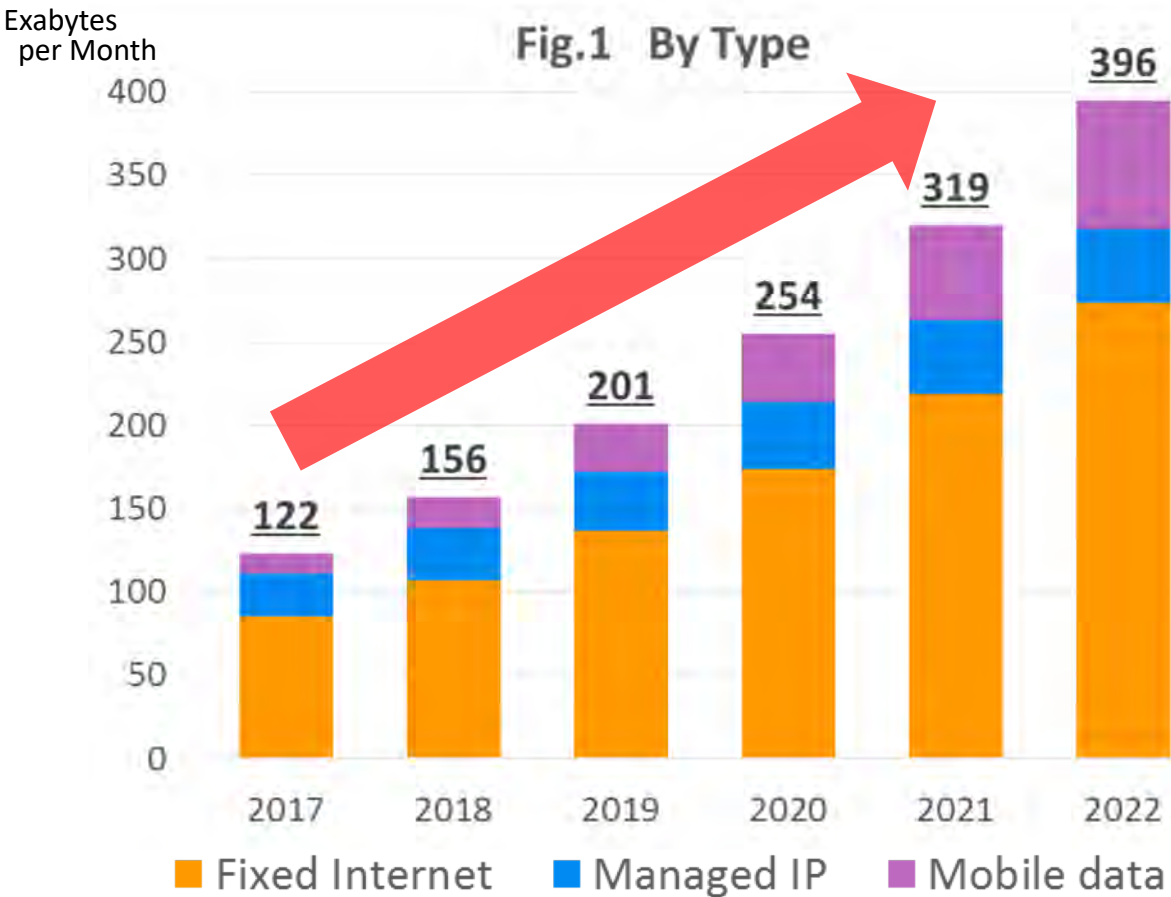
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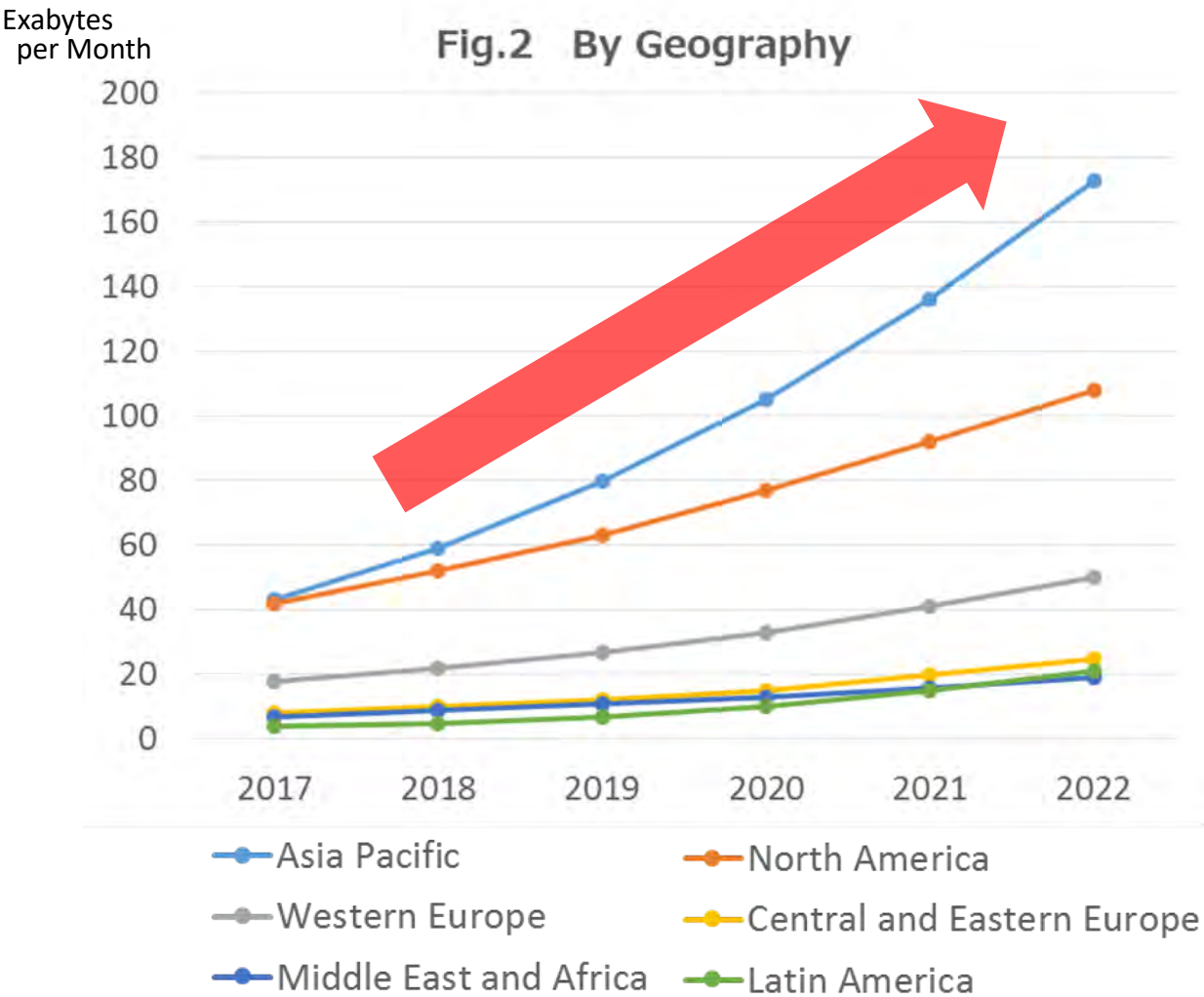
PACIFIC TELECOMMUNICATIONS COUNCIL

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Global IP traffic growth, 2017–2022



- Definitions
- **Internet** : Denotes all IP traffic that crosses an Internet backbone
 - **Managed IP** : Includes corporate IP WAN traffic and IP transport of TV and VoD
 - **Mobile** : Includes mobile data and Internet traffic generated by handsets, notebook cards, and mobile broadband gateways



Main Business Activities



**Maintenance of
communication cables**



**Optical cable
construction work**

Main Business Activities



**FTTH related
business**

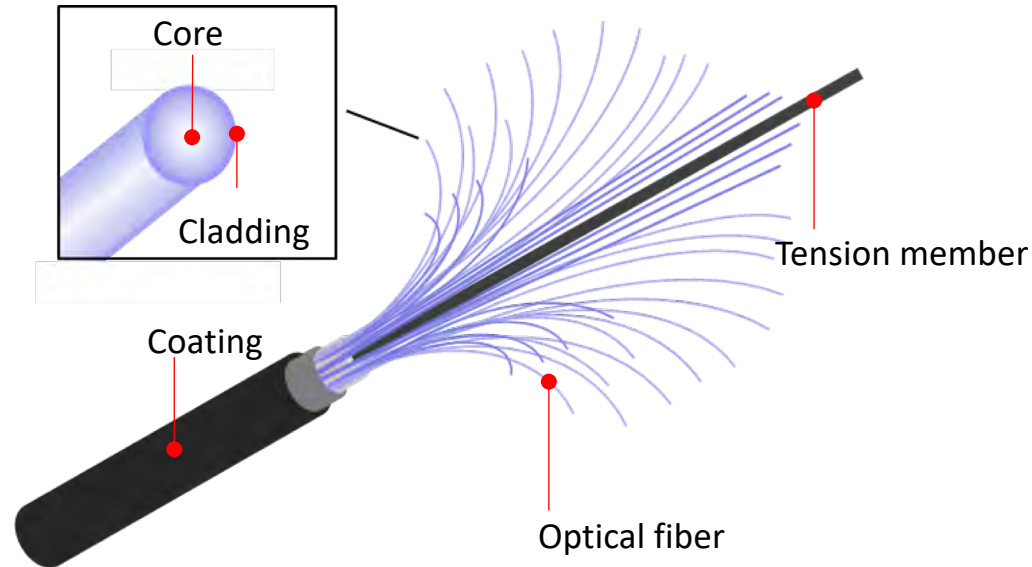


**Support for infrastructure
operation and management**

Optical Fiber

➤ Optical fiber cable

- ✓ Network structures are laid on utility poles, steel towers, and in utility tunnels



◆For electric power...

- As maintenance lines of power facilities

◆For communication activities...

- As cell phone lines
- As customer leased lines

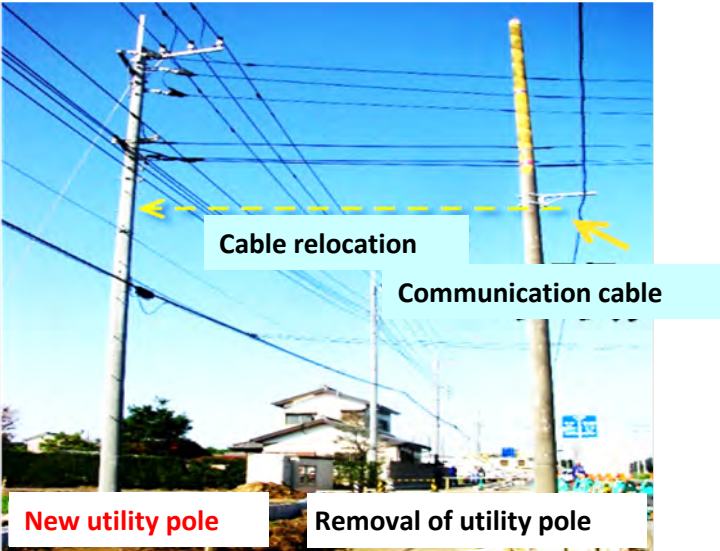
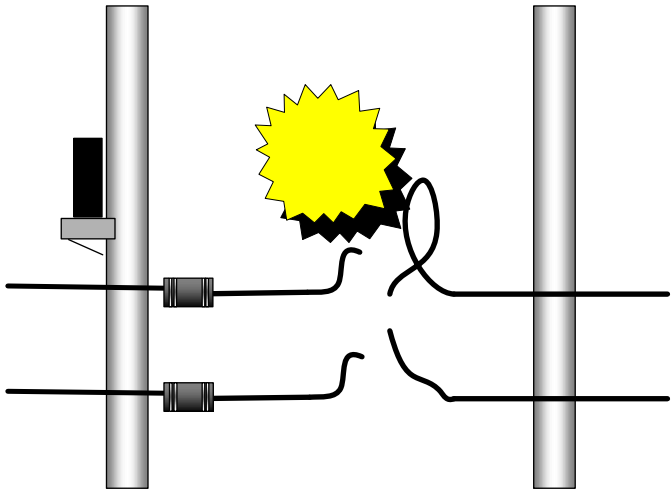

Telecommunication for Electric Power

- The central nervous system of a power facility-- essential for the stable supply of power
- ◆ Power output of power station
- ◆ Voltage and current, frequency
- ◆ Monitoring and control of power system
- ◆ Protection of power transmission lines
- ◆ Special phones for power maintenance



Scope of Communication Cables Maintenance

- Overseeing approximately 170,000 km of communication cables (four laps of the earth)

Main business activities		
<div>Relocation of hardware (Without disconnection cables)</div> <div></div>	<div>Damage restoration</div> <div></div>	<div>Responding to requests</div> <div></div> <div>Residents (Lease holders, contractors and others)</div>

Low cost / High quality

Prompt restoration

Comprehensive support

Promotion of the Business Support System

- Promoting systematization of various works to carry out maintenance work smoothly

Damage information sharing system

“Disconnection history of optical fiber” management system

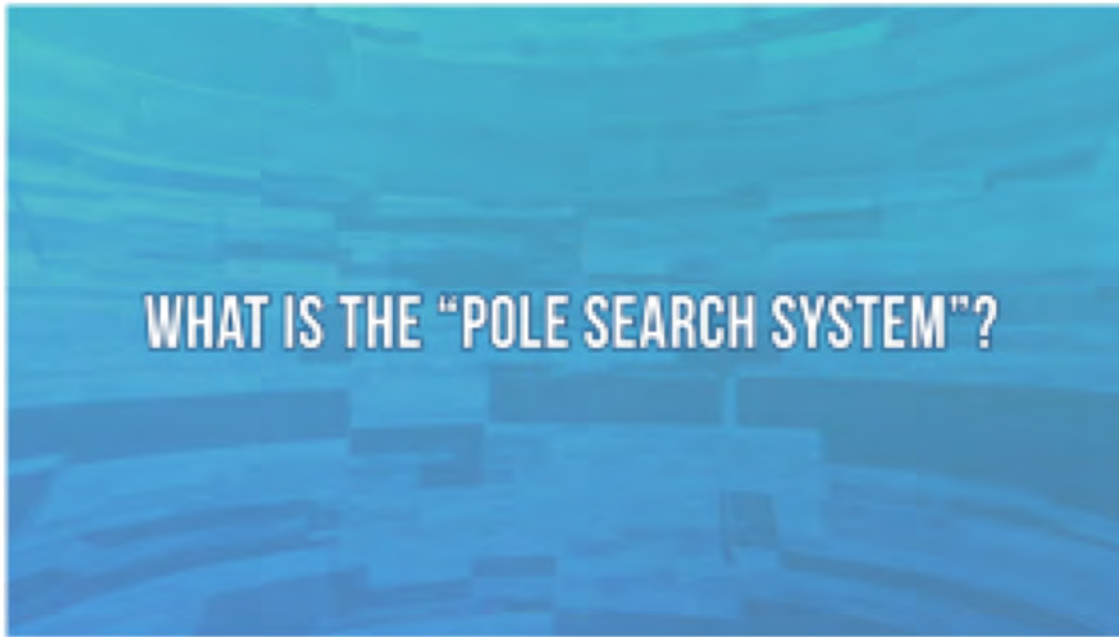


Utility pole search system

→ Deploy in-company system to new business!

“Pole Search System”

What is the “Pole Search System”?

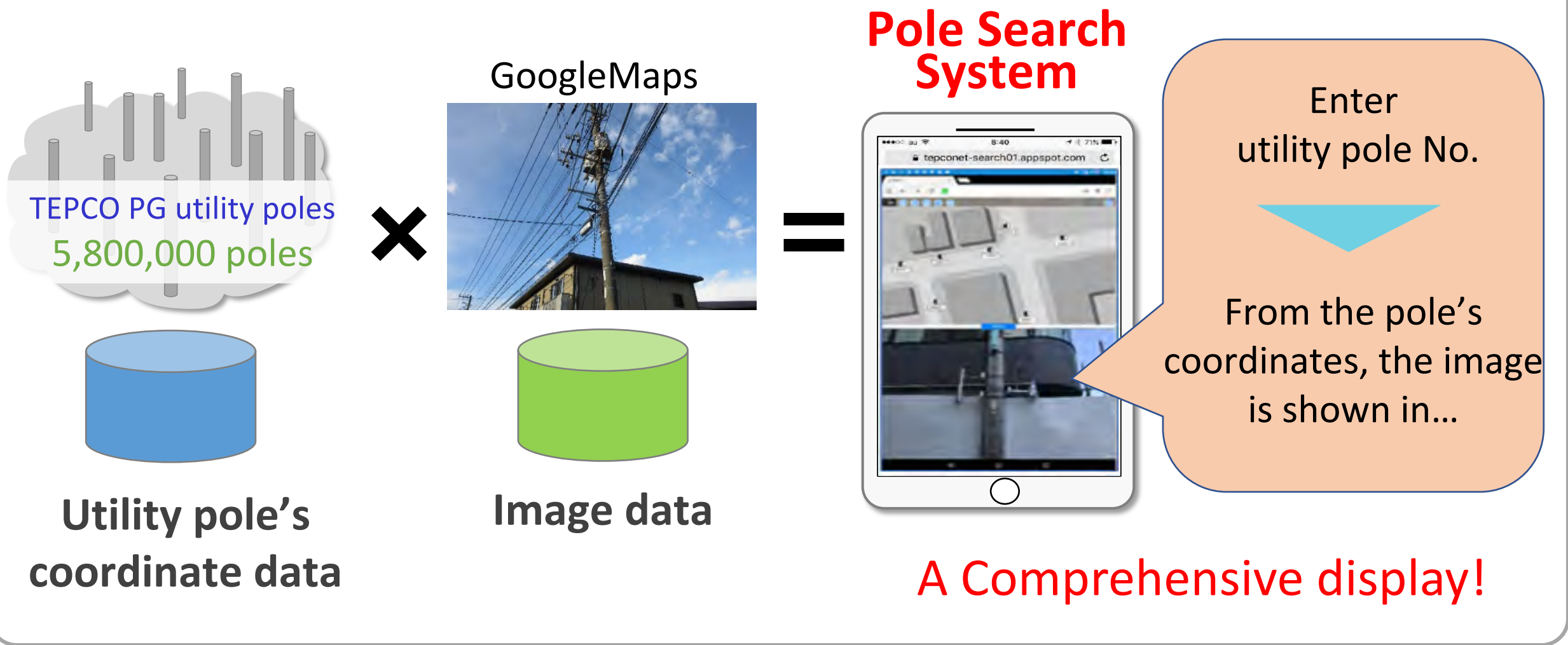


Features of the “Pole Search System”



Case Study in our Company

What is the “Pole Search System”?



Advantage of the “Pole Search System”

1. Identification of utility pole location

2. Confirmation of the local situation

3. Navigation assistance

4. Mail utility pole position

5. Share information (Memo function)

Navigation screen

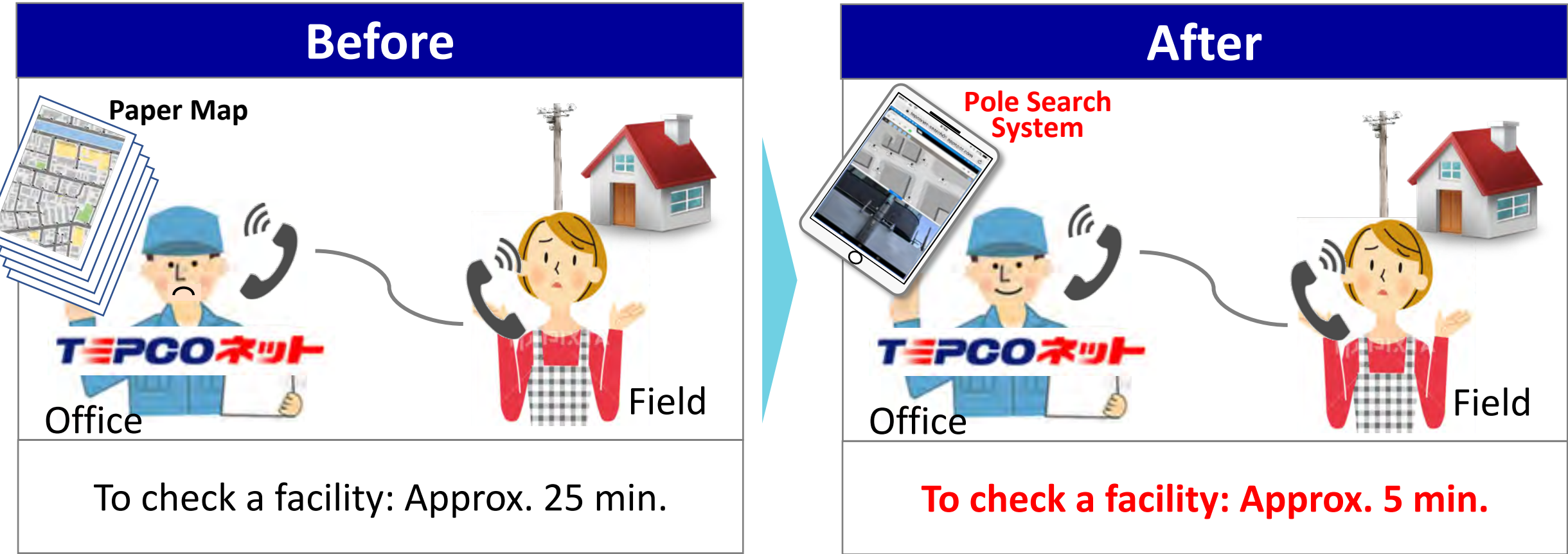


Display map and street view simultaneously



Case Example: In-Company Use at TEPCO Net

- Timely response to complaints from residents



Time Reduction rate: 80% (Installed results)

Our Challenge for Our Support Overseas

9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



1. Consulting of Optical-Fiber Cables construction

- Providing our know-how for
 - laying Optical-Fiber Cables
 - connecting Optical-Fiber Cables
 - switching Optical-Fiber Cables after starting use

2. Efficiency improvement by using the "Pole Search System"

- Providing "Pole Search System"
 - Efficiency improvement by avoiding Field-dispatch
 - Reduced Field-dispatch time

3. Application of the "Pole Search System" to other facilities

- Providing customized system according to your needs
 - Ex. Steel towers , Light poles , Traffic Lights etc