



Digital Products and Solutions Provider for the Energy Industry

Intelligent Management

Intelligent Monitoring

Intelligent Inspection

DIGITAL
STATIONS

DIGITAL
PIPELINES

DIGITAL
WELLSITES

Digital Products and Solutions Provider for the Energy Industry



CONTENTS

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Overview of Our Digital Service

02

Solutions for the Energy Industry

03

Products for the Energy Industry



Overview of UAC Digital Service

Businesses Overview



Some of our clients



TotalEnergies

Nile Valley
and African Economic
Alliance for Investment and Mining



تحالف وادي النيل
والاقتصادي الأفريقي للاستثمار والتعدين

Dietsmann
Maintaining Energy



PROU
Bahrain

 **360 GREEN**
SOLUTIONS


Hamilton Egypt
Hamilton Egypt, Agent for Trade Agencies and Marine Transport
هاميلتون إيجنيت للتجارة والتوكيلات والتوريدات العامة

سُقيا
الجمعية الكويتية لسقيا الماء
KUWAIT WATERING SOCIETY

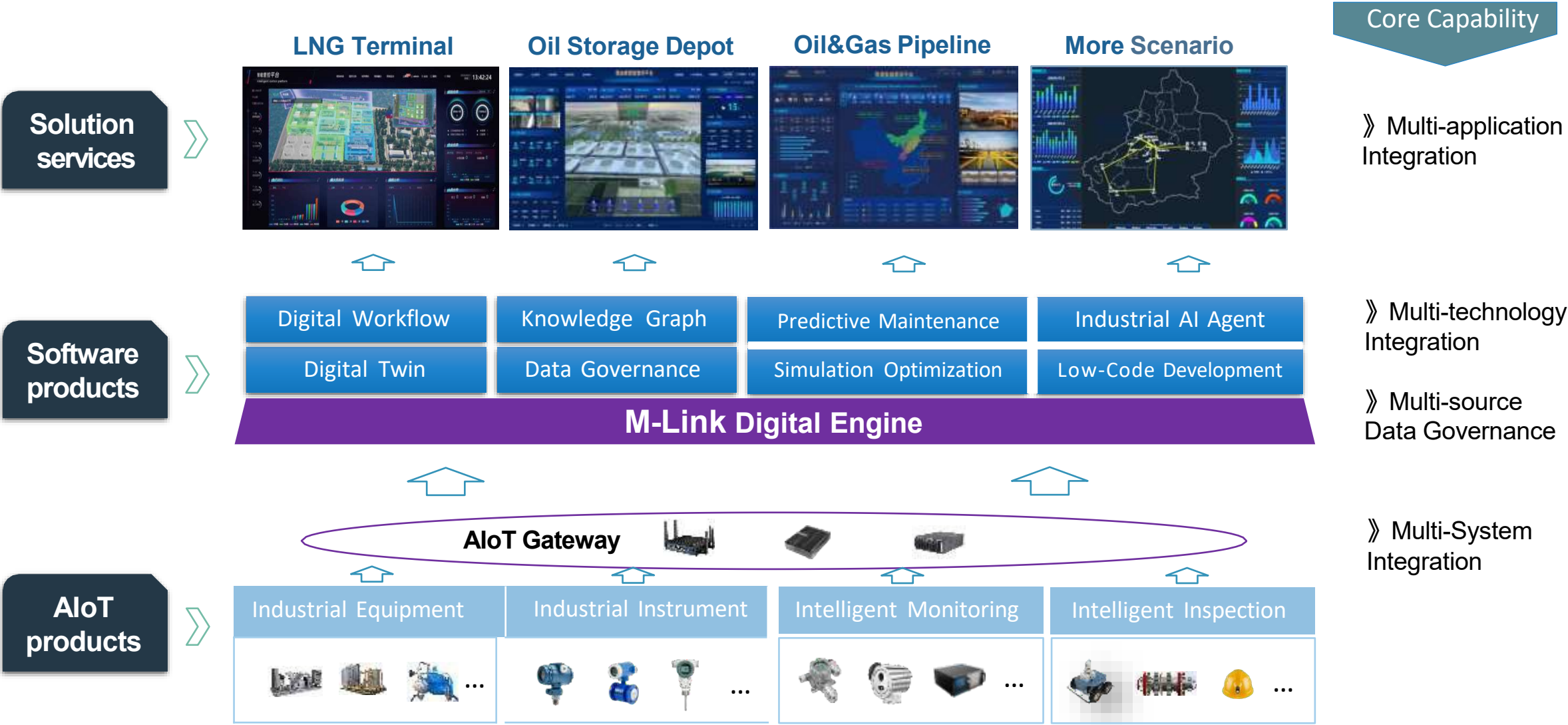


ACTENNOVEO INTERNATIONAL is our Financial Supporting Arm serves as the strategic backbone of the organization, empowering sustainable growth, operational excellence, and long-term impact through prudent financial stewardship and innovative funding solutions.



Businesses Overview

We can offer a complete series of **hardware**, **software** and **solutions** for the Energy Industry.

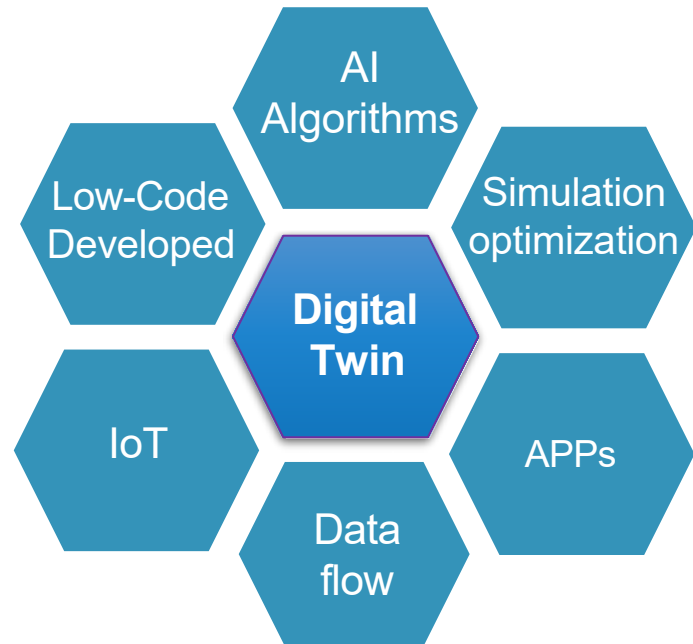


Digital Products and Solutions Provider for the Energy Industry

Businesses Overview

R&D capabilities » Software, High-efficiency customized development based on mature digital engine.

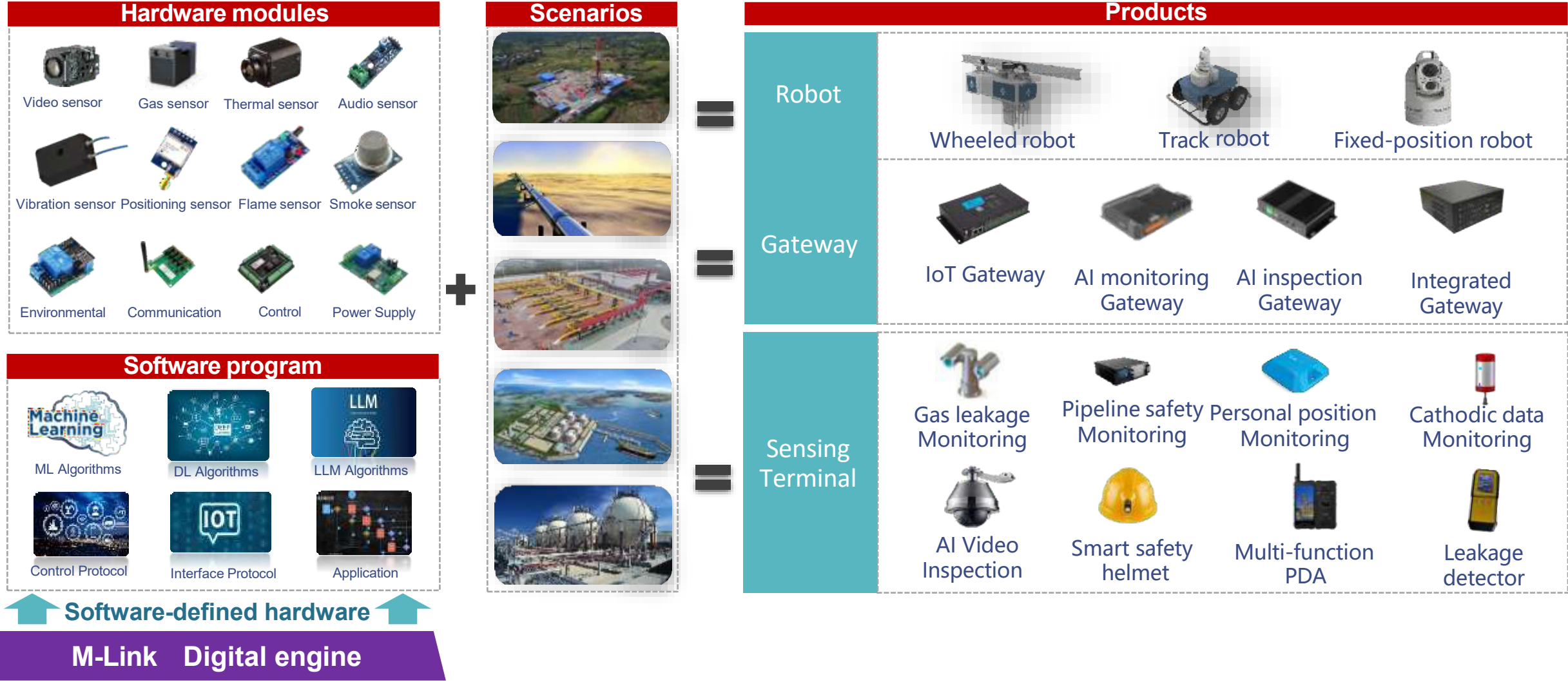
- CMMI 5 Software Development Certification
- 60+ Software Copyrights
- Independently M-link Digital Engine



Digital Products and Solutions Provider for the Energy Industry

Businesses Overview

R&D capabilities » Hardware, High-efficiency new product innovation experience and capabilities.



Businesses Overview

Solution service 》 We are well-equipped to deliver one-stop solution services.

One-stop service capability of Energy Digital solutions



Consulting and Design

- Grade B of Oil Engineering Design
- 50+successful cases of large-scale projects
- 50+experts in Oil and Gas Industry
- 100+ professional partners



System Construction

- Top-Level of Software Development, CMMI 5
- Top-Level of Electronic & Intelligent system
- Top-Level of Security & Protection system
- Level-2 of Communication system
- Level-2 of Mechanical and Electrical system



Operation and Maintenance

- CS-Information System Construction and Service
- ITSS-Information Technology Service Standards
- ISO27000-Information Security Management Systems
- CCRC-Information Security Service Qualification



Solutions for the Energy Industry

Digital solution for stations

Overview » We provides hardware, software and solutions for different kinds of stations.

Digital Twin

Industrial AI

Unified Monitoring

Predictive Maintenance



Smart System for Oil&Gas Stations



Digital Products and Solutions Provider for the Energy Industry

Digital solution for stations

Background and Challenges

Isolated mode

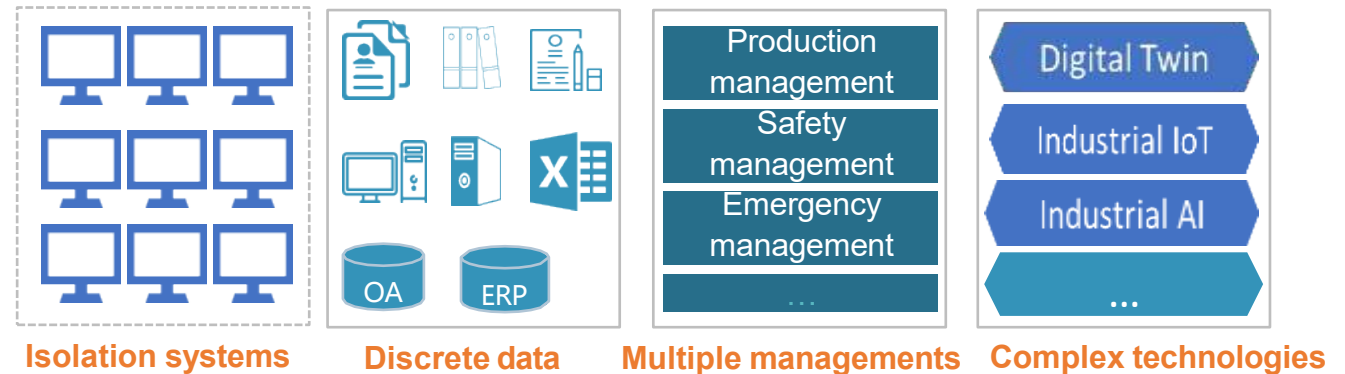


High work pressure, Low working efficiency,
High-frequency mistakes.

Integrated mode



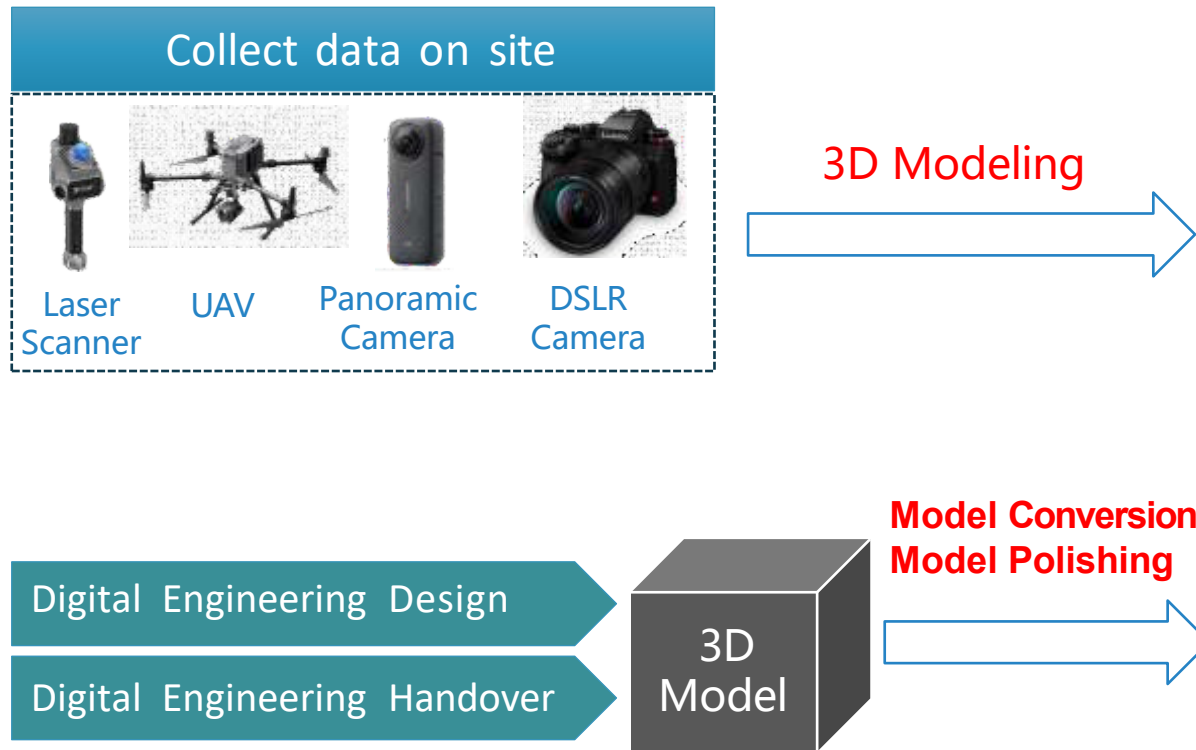
All in one system



Digital solution for stations

Digital Twin Service» 3D Modeling Service

We offer 3D modeling and 3D model conversion services, supplying high-precision industrial 3D models for digital twin applications.



High-precision 3D Model



Digital solution for stations

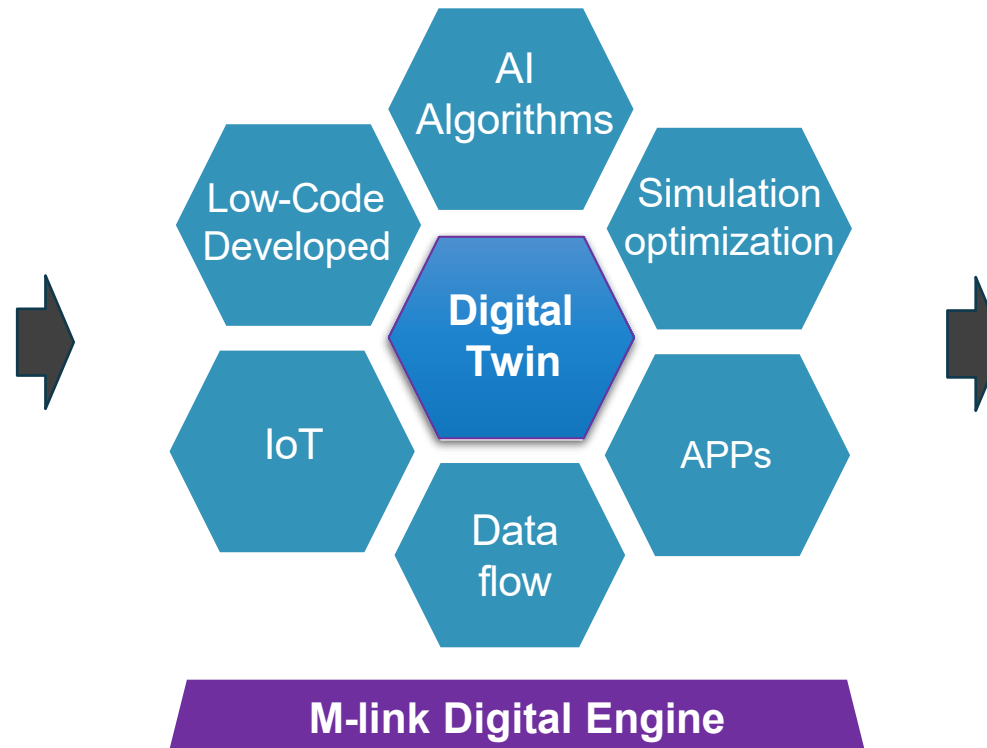
Digital Twin Service» Software Development

Using self-developed M-link Digital Engine our tools , various digital twin application systems can be rapidly developed.

3D Model



Development Tools



Digital Twin application systems



Digital solution for stations

Unified Monitoring »

Data Interconnection
Data Analysis
Terminal Linkage




SCADA/DCS
Automatic Instruments


FAS
Fire Alarm System


GDS
Gas Detection System

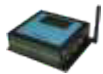

CCTV
AI video monitoring

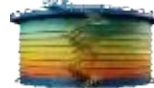

Perimeter Security
Monitoring


Emergency
Broadcast


Access Control
System


Personnel Positioning
Monitoring


Energy consumption
Monitoring


Tank Deformation
Monitoring


Tank Settlement
Monitoring



Stations



Digital solution for stations

Unified Inspection »

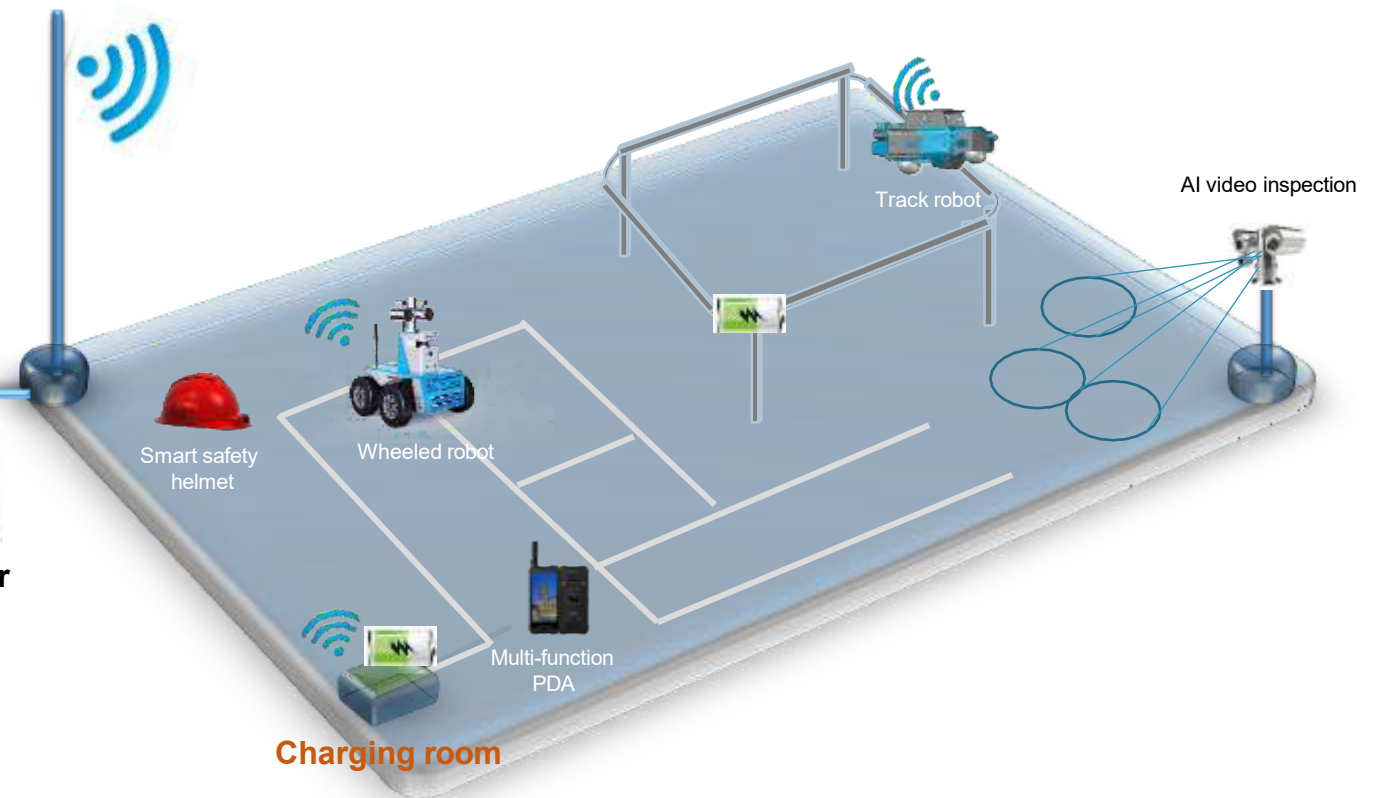
We can use one system to manage multiple robots and collaborate to complete inspection tasks.



Inspection management system

- Inspection route and task
- Inspection standard, inspection plan
- Alarm monitoring, status monitoring
- Remote control, report notification
- Support station digital twin model
- Support station multi-system integration management

Application terminal Server



Digital solution for Pipelines

Overview » We provides hardware, software and solutions for different kinds of pipelines.

Pipeline Digital Twin

Pipeline Integrity Management

Pipeline Communication

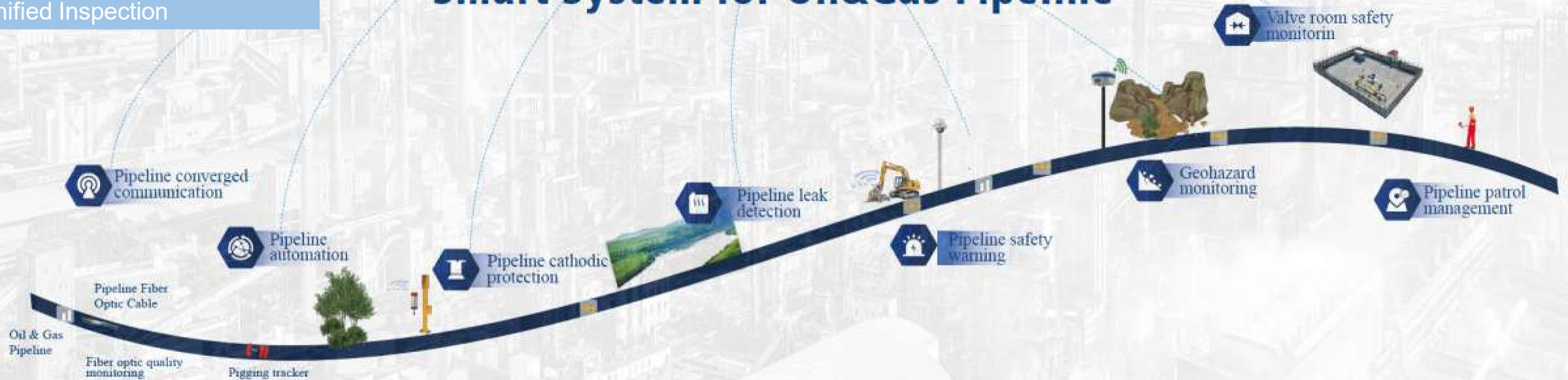
Pipeline Automation

Unified Monitoring

Unified Inspection

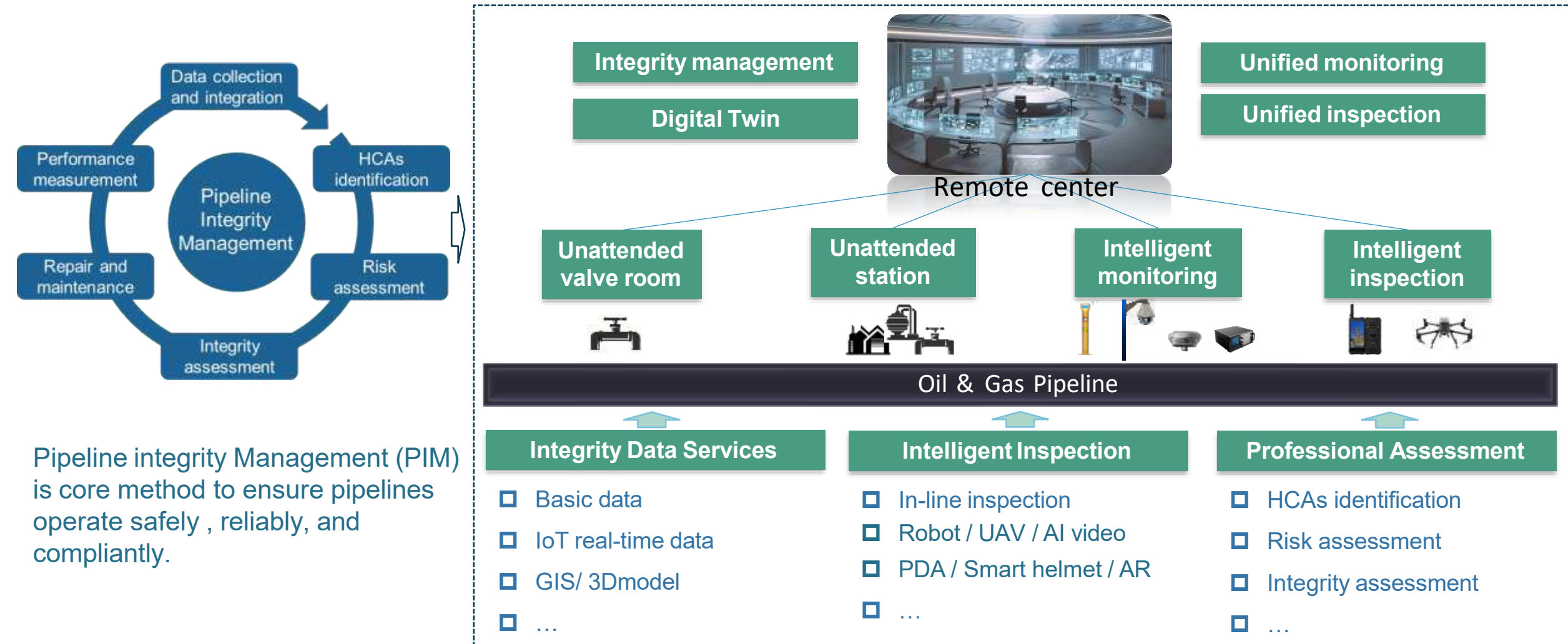


Smart System for Oil&Gas Pipeline



Digital solution for Pipelines

We provides a full range of professional services for Pipeline Integrity Management (PIM).



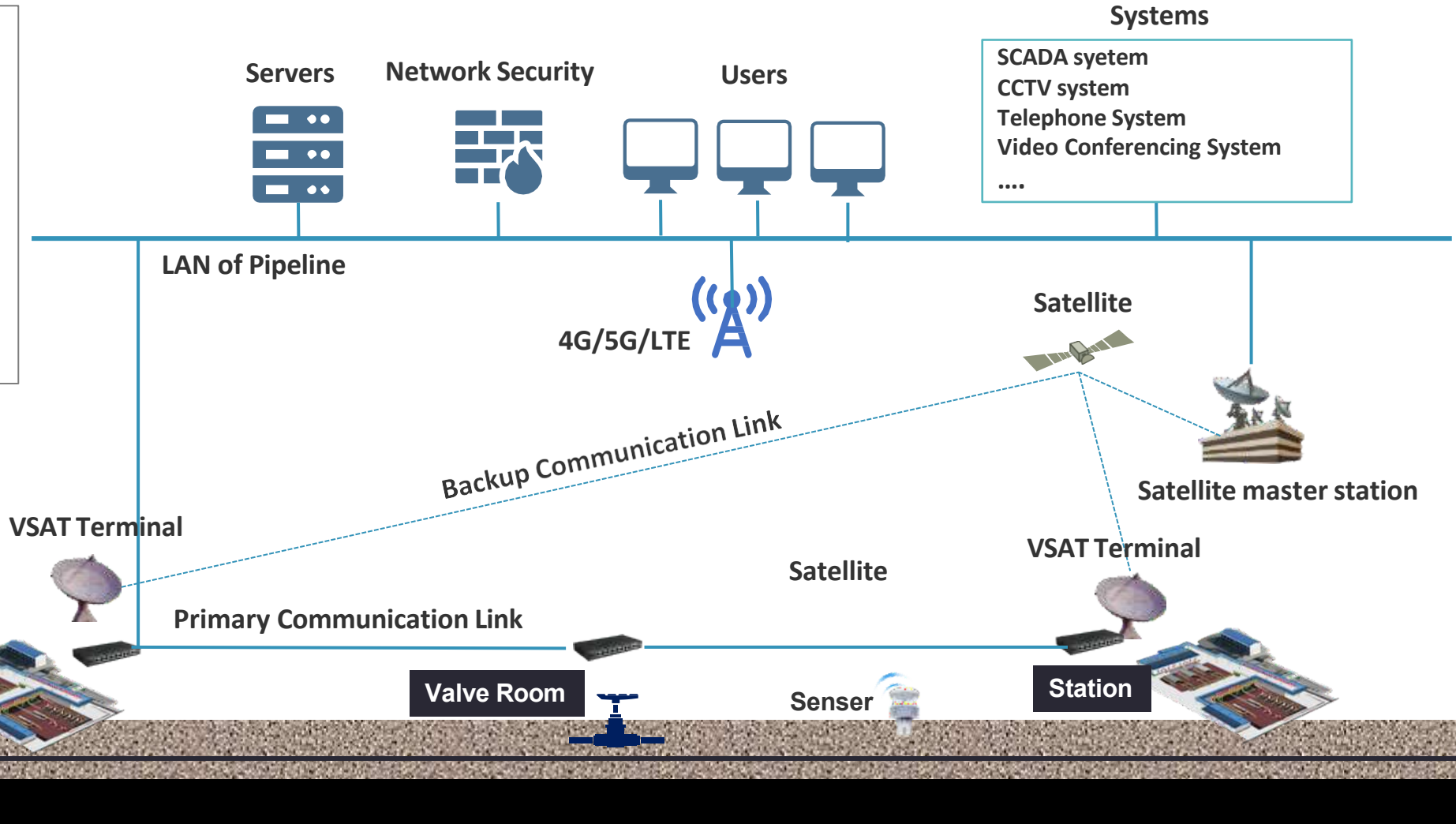
Pipeline integrity Management (PIM) is core method to ensure pipelines operate safely , reliably, and compliantly.

Digital solution for Pipelines

Pipeline communication systems»

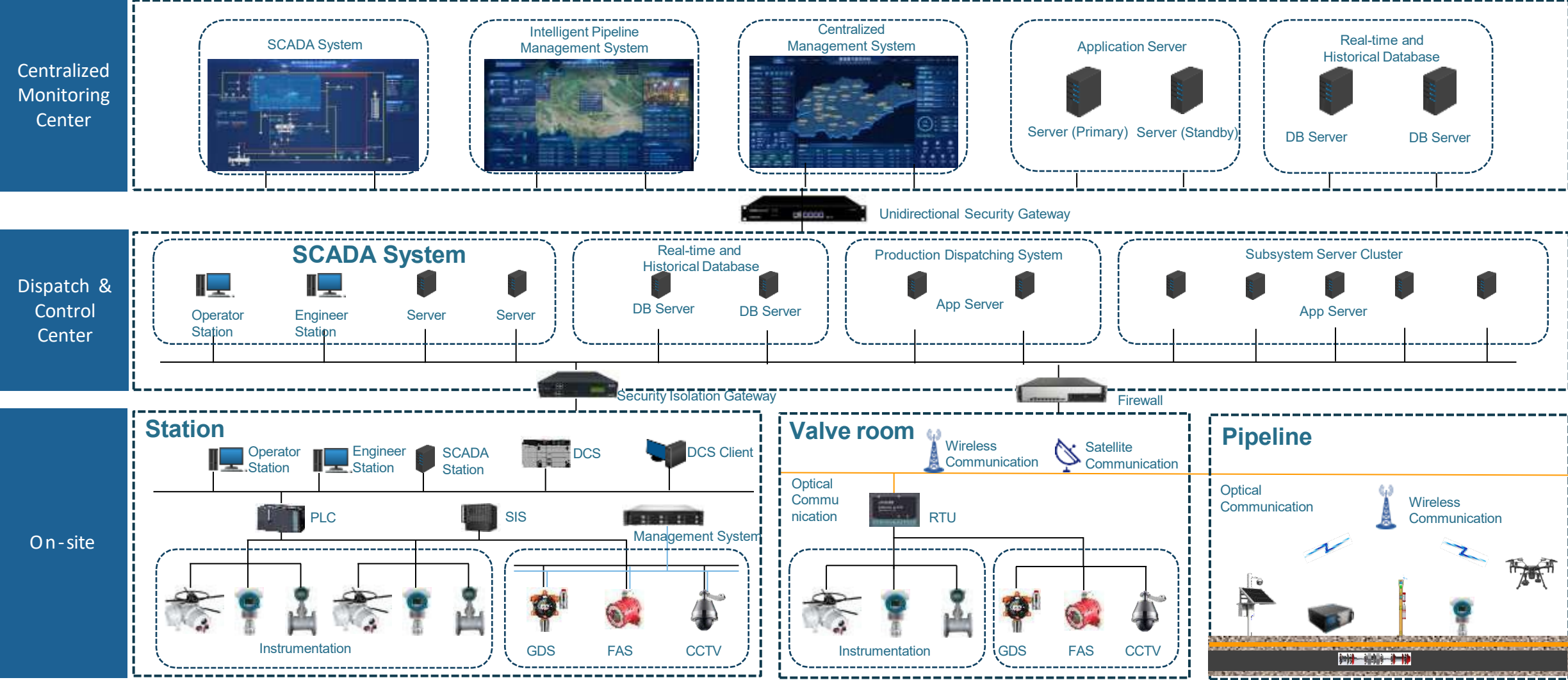
Communication systems

- ❑ Optical Communication
- ❑ Satellite Communication
- ❑ 4G/5G Communication
- ❑ Self-built Wireless
- ❑ ...



Digital solution for Pipelines

Pipeline Automation »



Digital solution for Pipelines

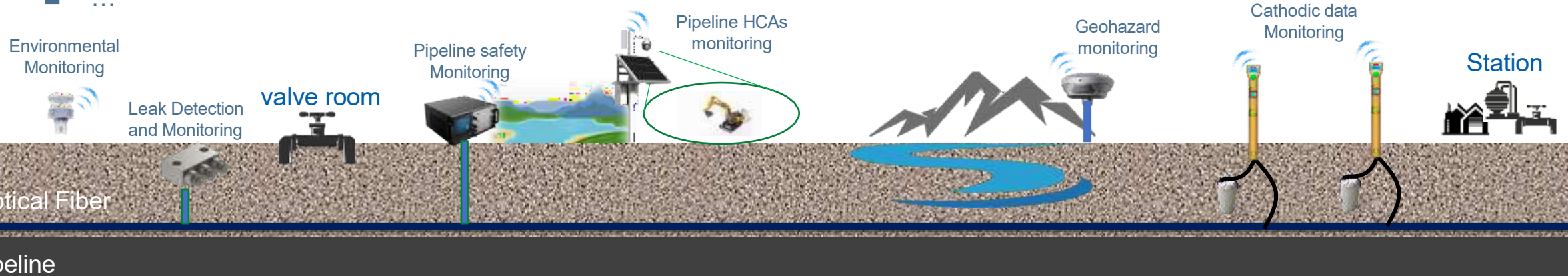
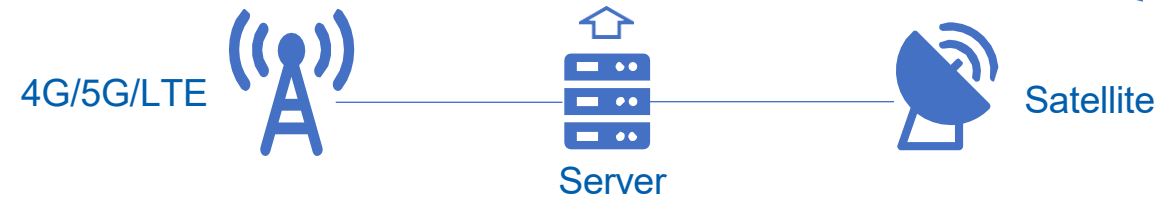
Pipeline Unified Monitoring»

Different types of monitoring terminals are managed uniformly.

- Pipeline safety Monitoring
- Pipeline HCAs Monitoring
- Leak Detection and Monitoring
- Cathodic data Monitoring
- Geohazard Monitoring
- Environmental Monitoring
- Unattended valve room
- Pipeline communication
- ...



Unified Monitoring

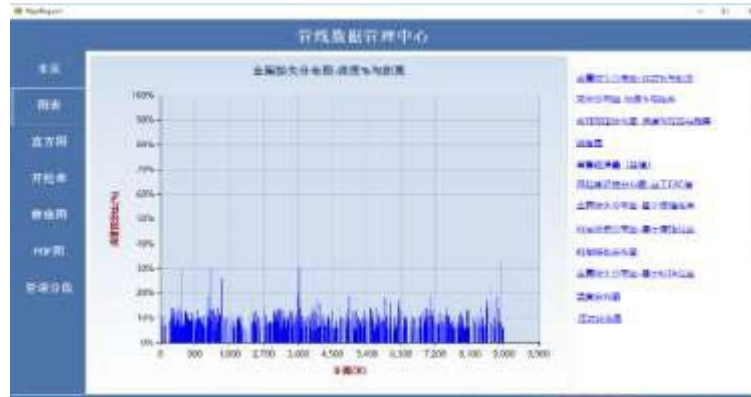


Digital solution for Pipelines

Pipeline Unified Inspection»

Different types of inspection terminals are managed uniformly.

- In-line inspection
- UAV inspection
- Multi-function PDA
- Smart safety helmet
- Gas Leakage detector
- ...



Data management

Smart safety helmet



Multi-function PDA



Gas Leakage detector



UAV inspection



Pipe pig tracking optical fiber sensing



Above Ground Marker

In-line inspection

- Corrosion
- Gauges
- Cracks
- Hard spots
- Weld anomalies
- Lamination
- Dent
- Ovality
- Buckle/Wrinkle

External inspection

- Girth welds
- Tees
- Bends
- Taps
- Anodes
- Valves
- Sleeves
- Insulating flange
- Patches



Digital solution for Wellsites

Overview » We provides an integrated solution for well site data monitoring and remote control.

Oil & Gas Field Communication

Oil & Gas Field Automation

Remote Monitoring & Control

AI Fault Analysis



Smart System for Oil&Gas Wellsites

Remote Data Monitoring



Flow



Pressure



Temperature



Indicator Diagram



Electrical Parameters

Security Risk Monitoring



CCTV



Leak Detection

Remote Start-Stop Control



Reboot



Positioning



PDA



Smart Safety Helmet

Remote Fault Analysis



Drilling Operation



Workover Operation



Pump Well



Gas Well



PCP Well



ESP Well

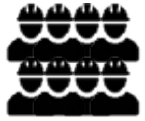


Injection Well

Digital solution for Wellsites

Background and Challenges

Traditional O&M management



High-frequency on-site inspections

- Long-distance travel to reach each well.
- A large amount of manpower is on-site every day.
- Low efficiency & high manpower costs.



Cannot quickly detect faults and risks.

- Shutdown/Power outage/Theft/Damaged...
- Risks and faults can only be detected on-site.
- High downtime, low production efficiency.



Heavy manual data workload

- Manual data recording and entry.
- Manual report statistics and analysis.
- Low efficiency, high error rate.



High maintenance workload

- Requires extensive on-site manual troubleshooting.
- Lack of experience in fault maintenance and analysis.
- High cost, low efficiency.



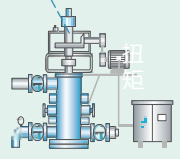
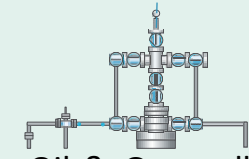
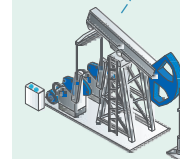
Intelligent management

Improve efficiency and reduce costs.



Intelligent system

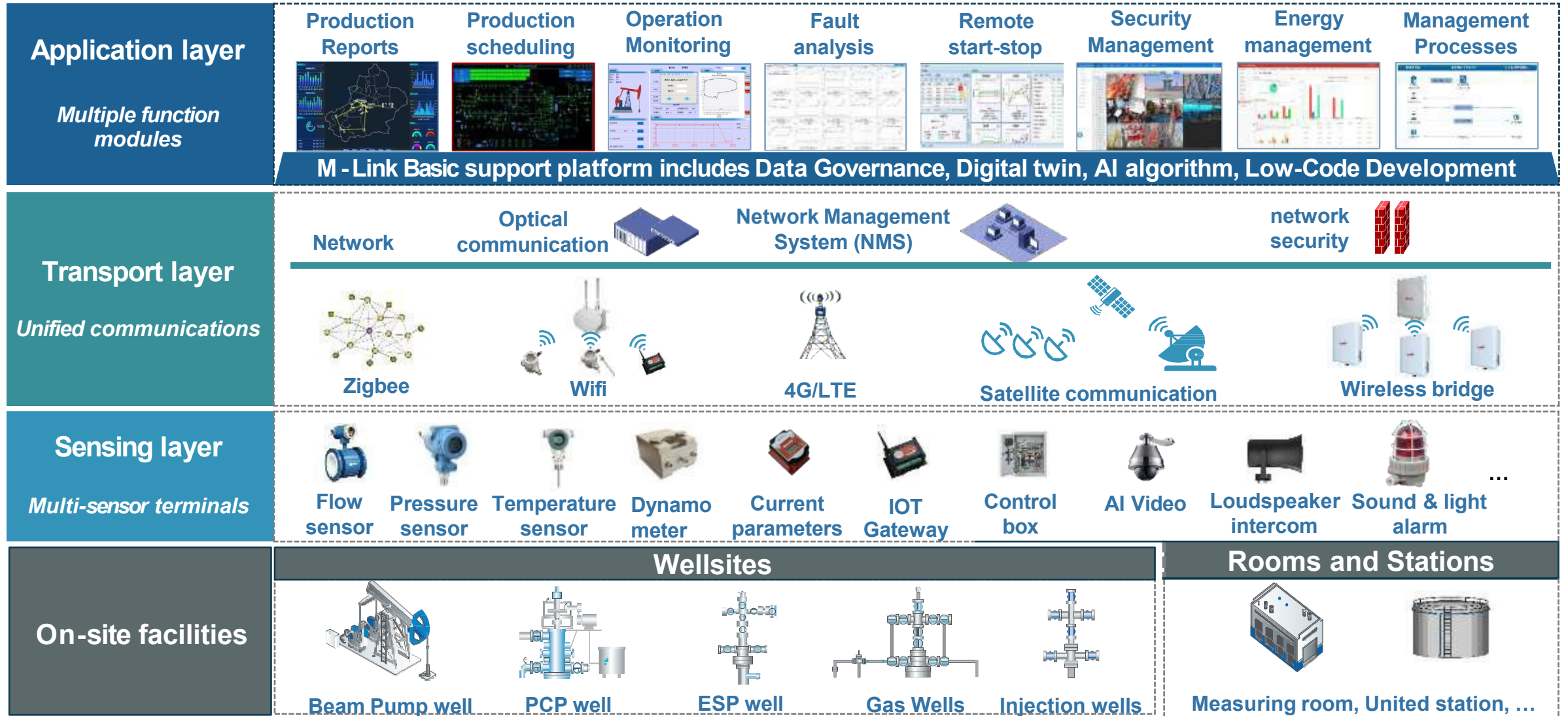
- ✓ Remote data monitoring
- ✓ Real-time faults and risks alarm
- ✓ Remote fault analysis
- ✓ Remote start / stop control
- ✓ Automatic data reporting



Oil & Gas wells

Digital solution for Wellsites

We can provide a complete solution, including sensors, communication and software.



Digital Products and Solutions Provider for the Energy Industry

Digital solution for Wellsites

For different kinds of Oil and Gas well, we provide a full set of sensing and communication equipment.



Data monitoring

Real-time data and reports



Security monitoring

Damage and theft risks



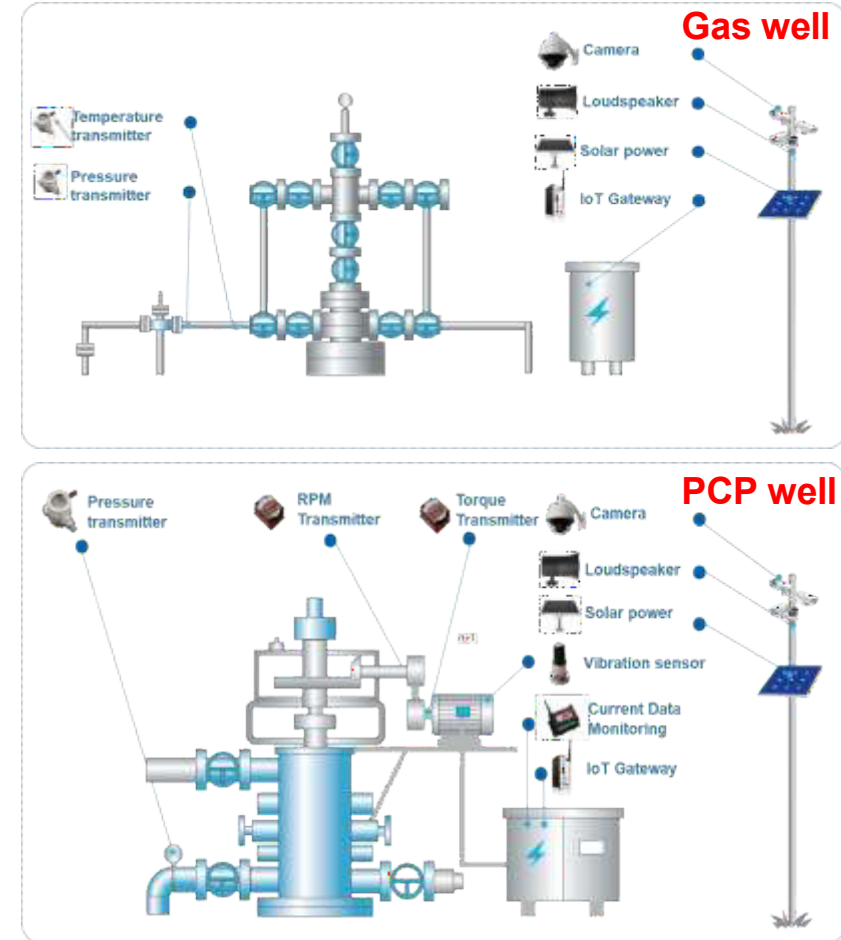
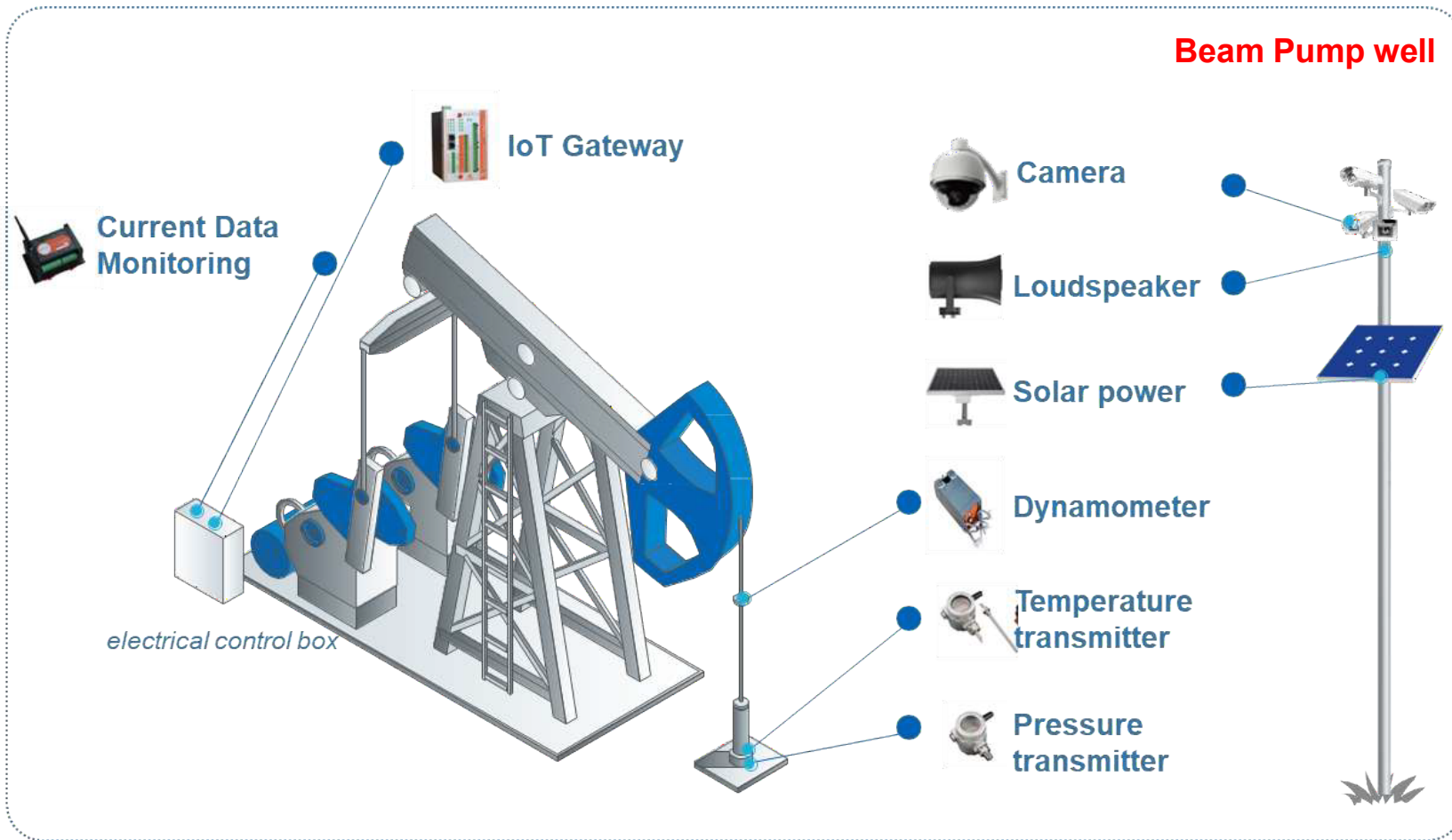
AI troubleshooting

Fault alarm and analysis



Remote control

Start / Stop control



Digital solution for Offshore Platform

We provides hardware, software and solutions for offshore platform .

- ❑ Remote Monitoring
- ❑ Remote Control
- ❑ Digital Twin
- ❑ Simulation & Optimization

Different type sensors



Remote center

Satellite communication

Fiber-optic communication



Offshore platform



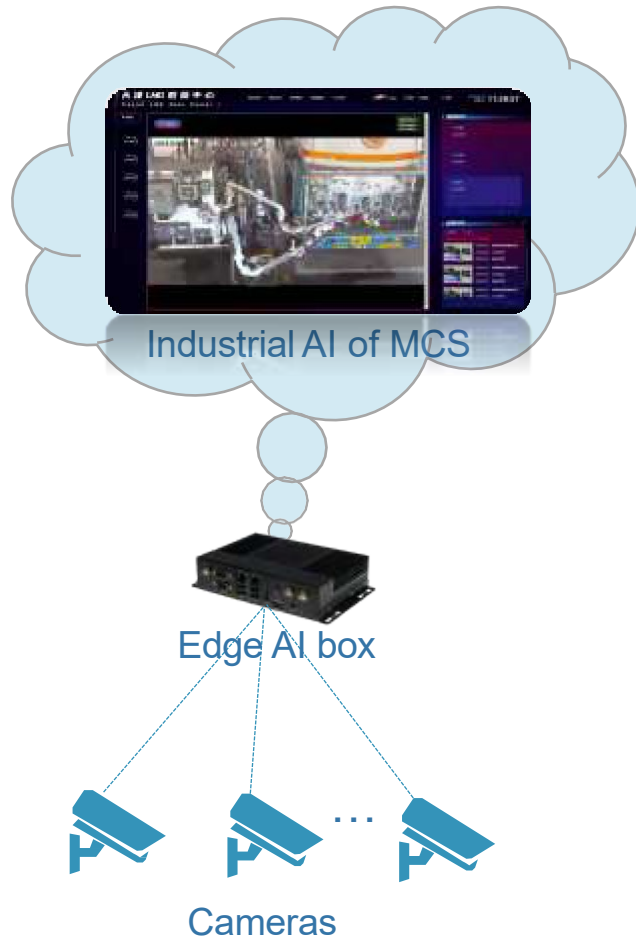
Products for the Energy Industry

Products for the Energy Industry

AI Video Monitoring

Using AI algorithms for videos and images to make existing CCTV systems more intelligent.

50+ energy industry-specific algorithms are optional



Personnel safety behavior monitoring



- ☐ Face recognition
- ☐ Region crossing recognition
- ☐ Helmet wear recognition
- ☐ Work clothing recognition
- ☐ Illegal smoking recognition
- ☐ Illegal call recognition
- ☐ Off duty recognition
- ☐ Abnormal Fall recognition
- ☐ ...

Special operation monitoring



- ☐ High altitude safety belt
- ☐ Put things in their place
- ☐ Illegal climbing and tramping
- ☐ Overcrowding
- ☐ Stay for a long time
- ☐ Standard valve operation
- ☐ Standard driving operation
- ☐ Standard refueling operation
- ☐ ...

Vision-based Risk Discovery

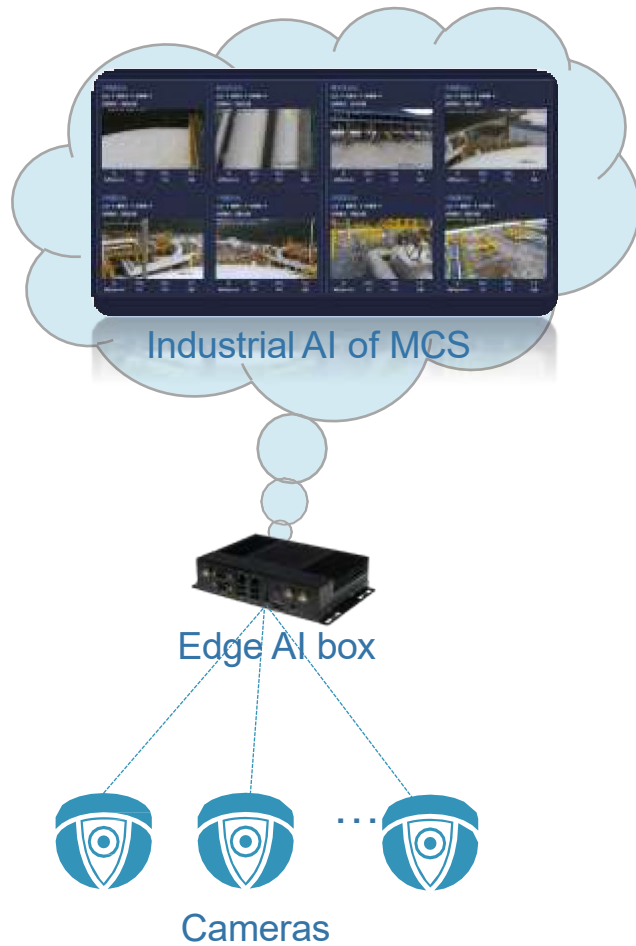


- ☐ Oil leak
- ☐ Smoke and fire
- ☐ Sign breakage
- ☐ Surface corrosion
- ☐ Excessive rocking
- ☐ Freeze to ice
- ☐ Collapse
- ☐ Changing colors
- ☐ ...

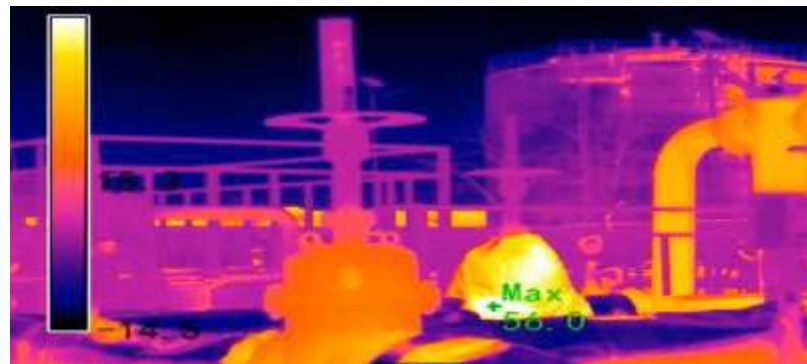
Products for the Energy Industry

AI Video Inspection

Using AI algorithms for videos and images to make existing CCTV systems more intelligent.



The image is captured clearly
Identification can be more accurate



100+ energy industry-specific algorithms

On-site meter reading



Broken of facilities



Surface corrosion



Vision-based Leak Discovery



Field switching status



Other custom requirements



Products for the Energy Industry

PDA (Personal Digital Assistant)

We supply a series of explosion-proof **PDA hardware terminals**, together with software systems for **oil field inspection**, **pipeline patrol**, **equipment maintenance inspection** and **material asset management**.



PC端



APP端



AR端



Explosion-proof
PDA-A

EX
Basic Model



Explosion-proof
PDA-B

ATEX
Basic Model



Explosion-proof
PDA-C

Field
Inspection



Explosion-proof
PDA-D

Asset & Material
Management



Explosion-proof
PDA-E

Emergency
Response



Explosion-proof
PDA-F

Temperature
Detecting



Explosion-proof
PDA-G

AR
Inspection

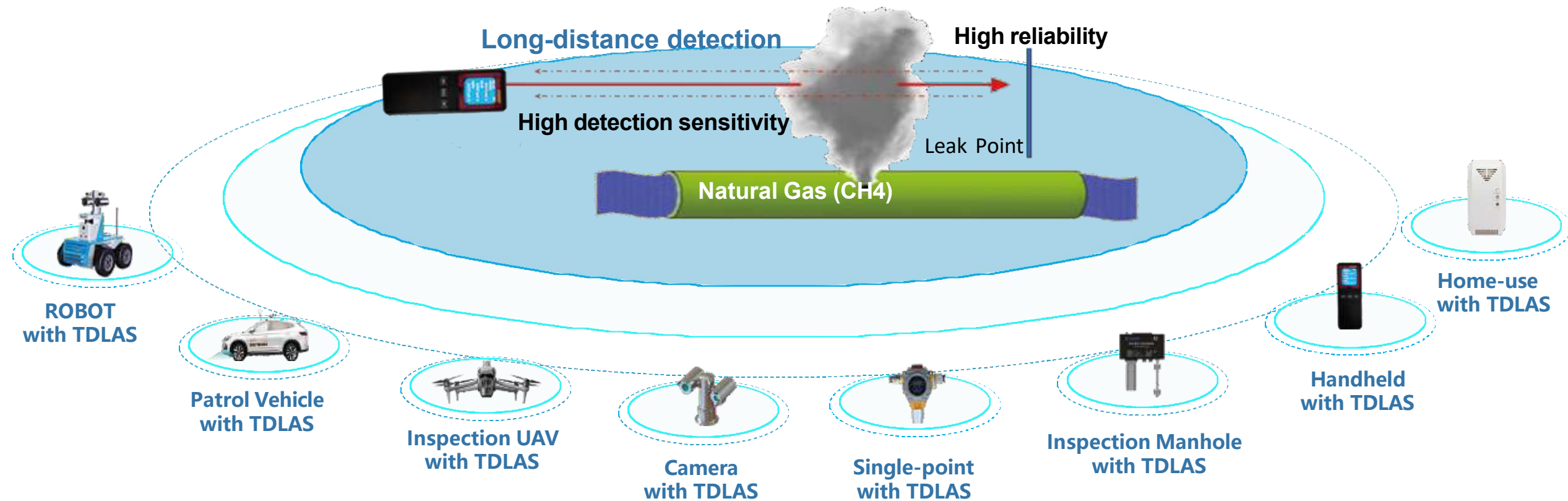
Digital Products and Solutions Provider for the Energy Industry

Products for the Energy Industry

Natural Gas Leak Detection Products

TDLAS(Tunable Diode Laser Absorption Spectroscopy) technology specially applied to **Natural Gas(CH₄)** leakage detection.

TDLAS Gas Leak Detection Technology



Products for the Energy Industry

IoT (Internet of Things)

Provide a full set of communication, monitoring and inspection terminals for various scenarios.



Production Dispatch Center

- ❑ Remote monitoring
- ❑ Remote control
- ❑ Remote Troubleshooting
- ❑ Remote data analysis

Unmanned & Less-manned On-duty

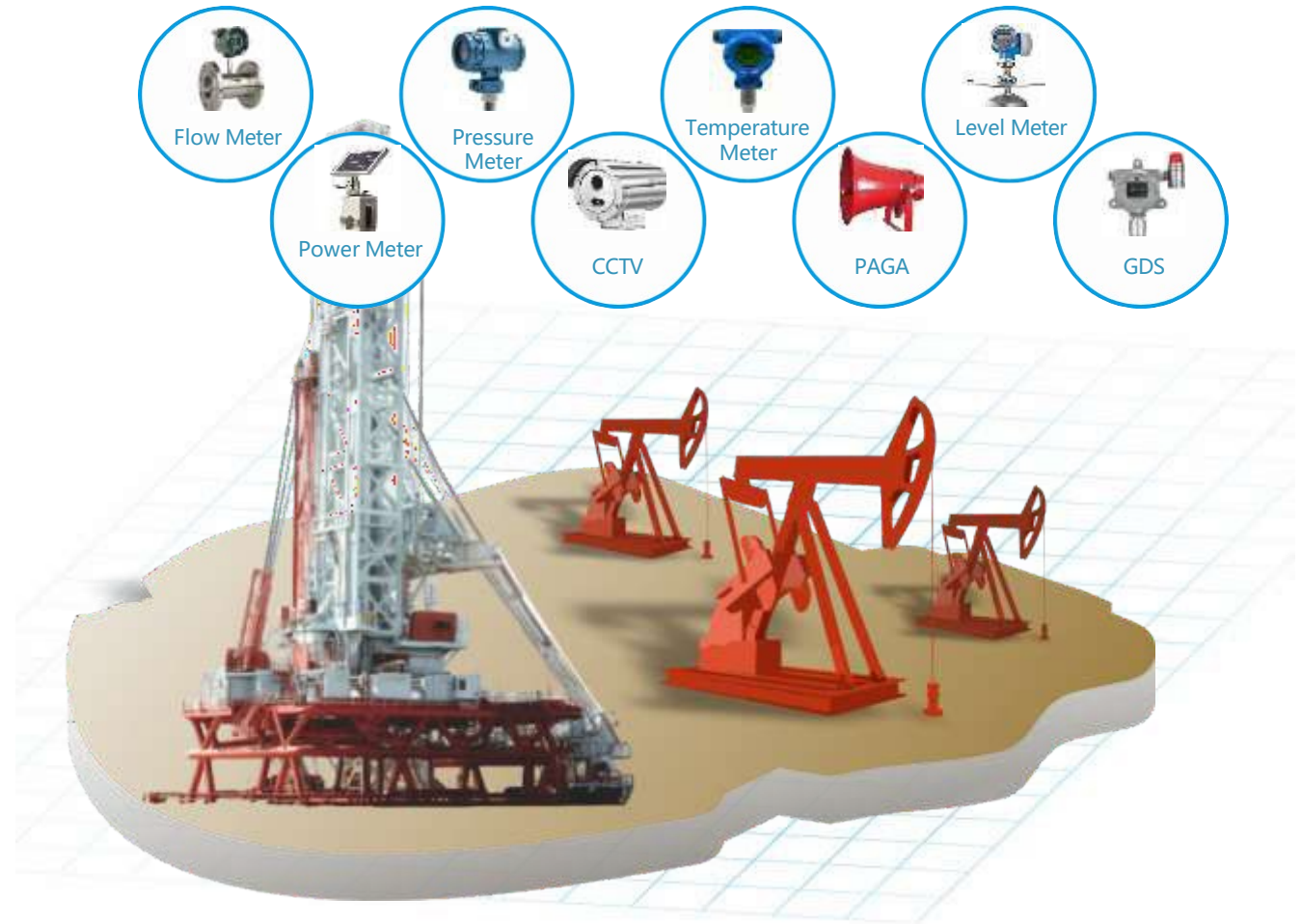


Products for the Energy Industry

Onshore Oil & Gas Field IoT

We can supply a full suite of IoT products for Onshore Oil & Gas Field.

- **Flow Meter**
- **Pressure Meter**
- **Temperature Meter**
- **Level Meter**
- **Power Meter**
- **CCTV system**
- **PAGA system**
- **Gas Detection system(GDS)**
- **Personnel Positioning system**
- **Drilling Red Zone Monitoring system**
- **AIoT Gateway**
- **Multiple Communication**
- ...



Products for the Energy Industry

Offshore Oil & Gas Field IoT

We can supply a full suite of IoT products for Offshore Oil & Gas Field.

- **CCTV system**
- **PAGA system**
- **Gas Detection system(GDS)**
- **Smoke and Fire Detector**
- **Audio-Visual Alarm**
- **Weather Monitoring**
- **Oil Spill Radar Monitoring**
- **Electric Trace Heating System**
- **AI video inspection**
- **AIoT Gateway**
- **Industrial Meters**
- **Multiple Communication**
- ...



Products for the Energy Industry

Oil & Gas Pipeline IoT

We can supply a full suite of IoT products for Oil & Gas Pipeline.

- Pipeline Leak Monitoring
- Pipeline safety Monitoring
- Pipeline HCAs monitoring
- Pipeline Cathodic data Monitoring
- In-line Inspection
- UAV Inspection
- CCTV system
- Gas Detection system(GDS)
- Gas Leak Monitoring
- Robot Inspection
- AIoT Gateway
- Multiple Communication
- ...

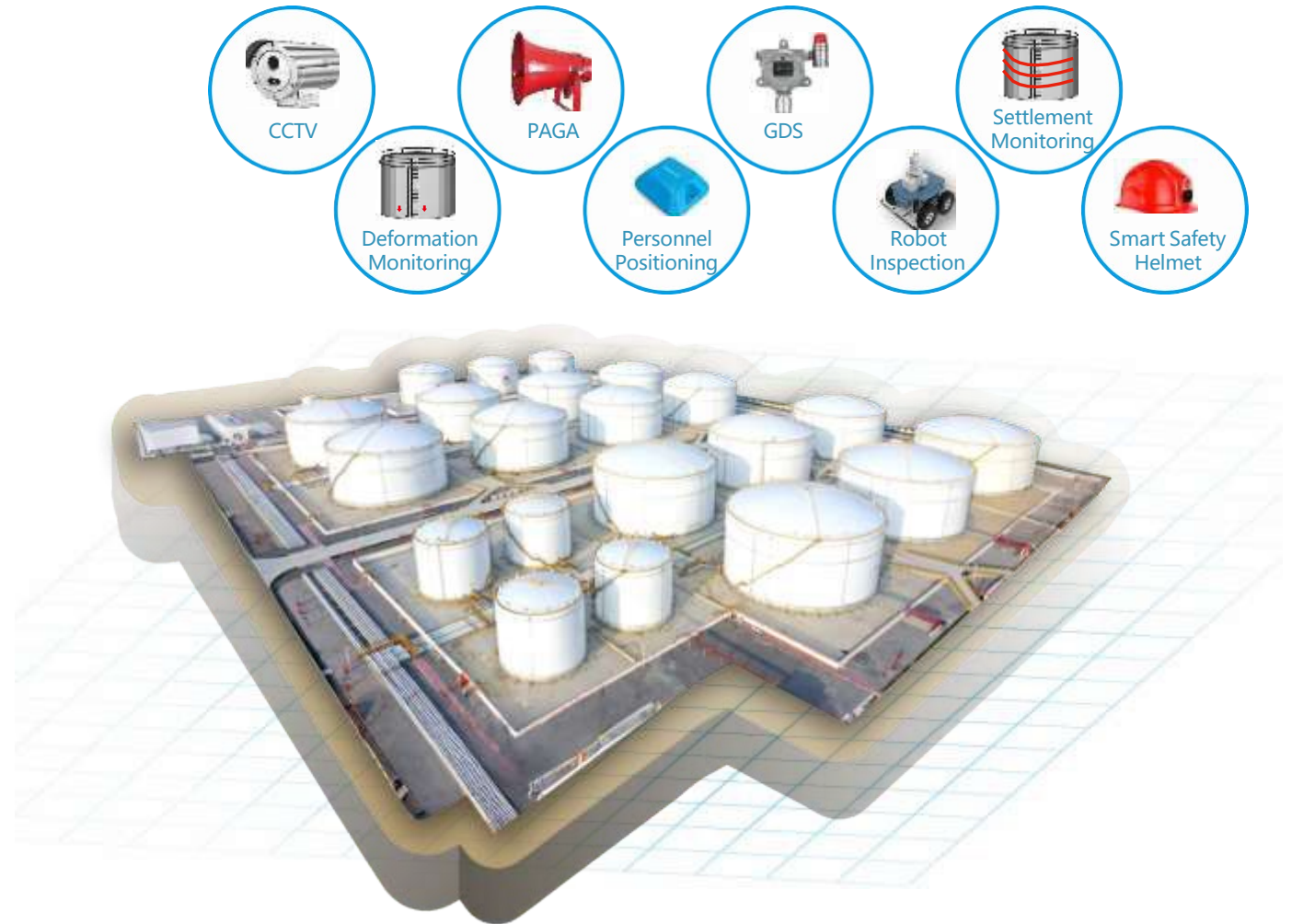


Products for the Energy Industry

Oil Storage Depot IoT

We can supply a full suite of IoT products for Oil Storage Depot.

- **CCTV system**
- **PAGA System**
- **Gas Detection system(GDS)**
- **Tank Settlement Monitoring System**
- **Tank Deformation Monitoring System**
- **Personnel Positioning**
- **Robot Inspection System**
- **Perimeter Security System**
- **Handheld Inspection Terminal**
- **Smart Safety Helmet**
- **AIoT Gateway**
- **Multiple Communication**
- ...



Digital Products and Solutions Provider for the Energy Industry

Products for the Energy Industry

LNG Terminal IoT

We can supply a full suite of IoT products for LNG Terminal.

- **CCTV system**
- **PAGA System**
- **Gas Detection system(GDS)**
- **Personnel Positioning**
- **Gas leakage Monitoring system**
- **Robot Inspection System**
- **Perimeter Security System**
- **Handheld Inspection Terminal**
- **Smart Safety Helmet**
- **AIoT Gateway**
- **Multiple Communication**
- ...



A photograph of an industrial facility, likely a water treatment plant or refinery, featuring large silver pipes, a storage tank, and yellow structural elements. A semi-transparent blue rectangle is overlaid in the center, containing the word "Thanks" in white text.

Thanks