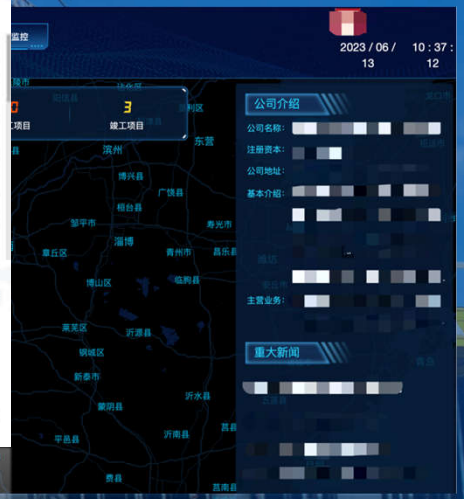
Automate Construction Monitoring Solution

Xinsen technologies

Get real-time insights into your site's safety from anywhere, anytime



200+ AI Algorithms

Corerain Inference Platform (CRIP) &Corerain AI Management Center (CRMC)

All-in-one ASMA Solution

*Provide different product forms according to on-site needs, the product appearance is for reference only

Xinsen technologies

Challenges in Construction Workplace Safety

High Accident Probability

Construction sites are mobile in terms of people, machines and materials with a large number of temporary facilities, and many high-risk operations,which cause high probability of accidents.

Skewed Perception of Risk

Workers who’ ve been on construction sites for many years are prone to becoming desensitized to hazards.

Difficulty in Safety Management

Influenced by varied quality and weak self-protection awareness, the workers ‘ violations are frequent and hard to control using existing supervision system without pre-warnings.

Outdated Supervision System

Highly rely on manual supervision, lack of intelligent supervision system,has loopholes in complex site environment.

Xinsen technologies

How to Ensure Safety and Protect Construction Workers?

Construction workers can face a variety of risks on job sites, especially when PPE wearing and safety protocols aren't followed.

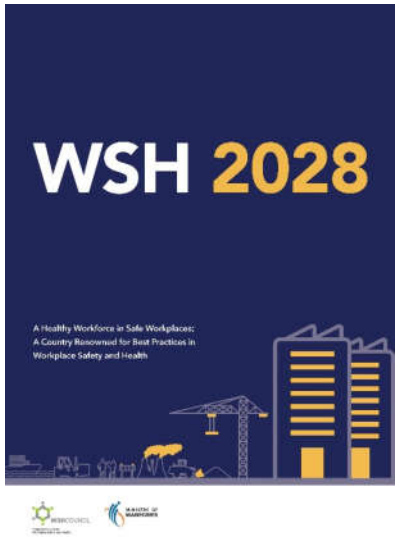
However,
it's easy to overlook basic safety protocols.

For example, workers probably know that wearing a hard hat on the job site is common sense, but enforcing those rules can be challenging, especially if they're time-consuming or inconvenient.

Xinsen technologies

Governments Promoting the Implementation of AI Technology Infrastructure Development

Saudi Arabia's audacious 2030 vision isn't just driving its economic boom; it's positioning the kingdom as a trailblazer in embracing cutting-edge technologies like AI.
沙特阿拉伯雄心勃勃的“2030愿景”不仅推动了其经济发展，更使其成为引领人工智能等前沿技术发展的先驱国家。



Singapore's Workplace Safety and Health (WSH) 2028 vision seeks to leverage on emerging technologies to become a world leader in the field of worker's safety.

Promote Technology-Enabled WSH is one of the key strategies to achieve WSH 2028 goals.
新加坡“2028年工作场所安全与健康愿景”旨在利用新兴技术，成为全球工作场所安全领域的领导者。推广应用技术提升工作场所安全与健康水平，是实现“2028年工作场所安全与健康愿景”目标的关键策略之一。

In 2023, the Works Branch of the Development Bureau of the Government of the Hong Kong Special Administrative Region (DEVB) has issued Technical Circular (Works) No. 3/2023 promulgating the adoption of Smart Site Safety System (4S) in public works projects with a contract sum exceeding $30 million.
2023年，香港特别行政区发展局工程处发布了《工程技术通告第3/2023号》，规定所有合同金额超过3000万港元的公共工程项目必须采用智能工地安全系统（4S）。

Xinsen technologies

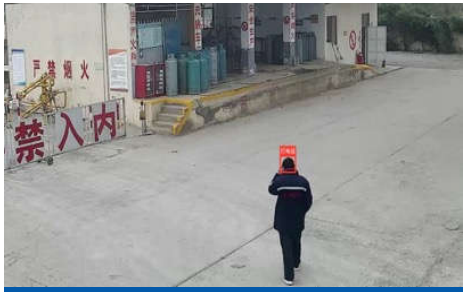
AI Algorithms: Workers Behavior Management

Helmet Recognition

Reflective Vests Recognition

Uniform Recognition

Intrusion Recognition



Call Recognition

Leaving Post Recognition

Smoking Recognition

Gathering Attendance Statistics

AI Algorithms: Environment & Equipment Status Monitorin

Xinsen technologies

Smoke Recognition

Flame Recognition

Dump Truck Dirt Recognition

Exposed Soil Recognition

Missing Guardrail Recognition

Dump Truck Cover Lift Recognition

Xinsen technologies

Hardware: CAISA Empowered AI Accelerator Platforms

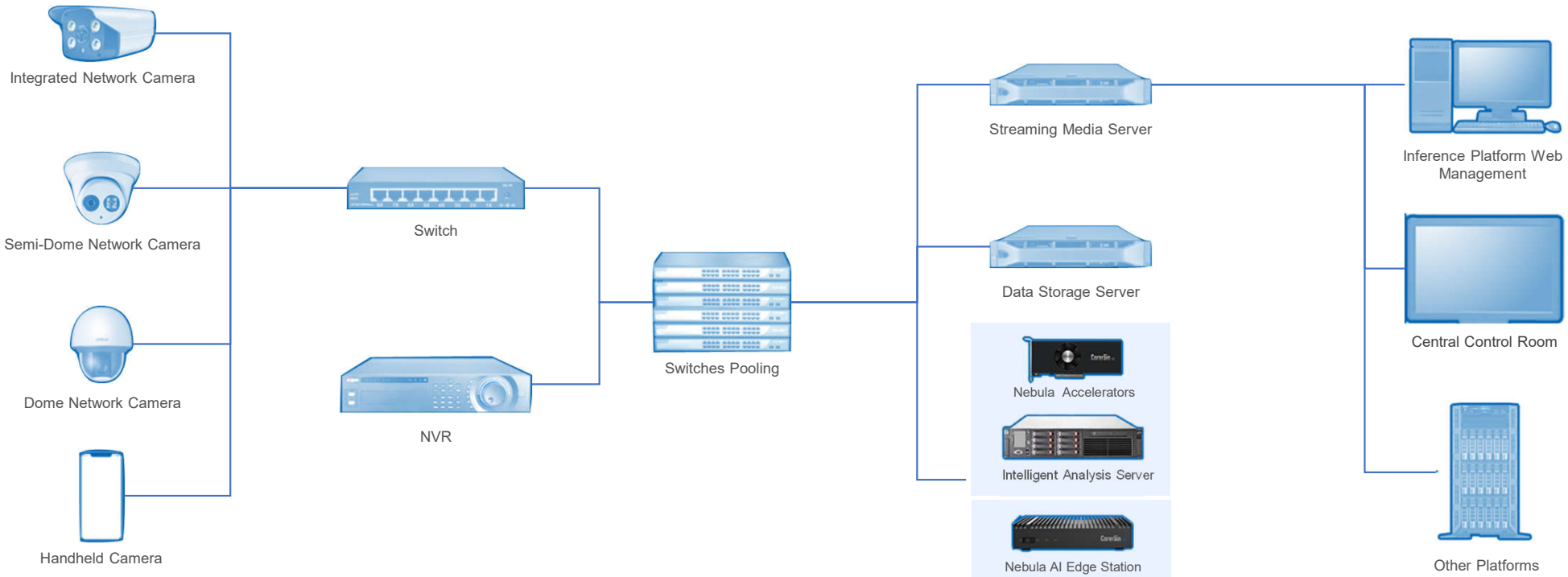
Based on the first commercial streaming AI chip worldwide, it provides different edge computing platforms, supports multiple types of computing nodes that allow horizontal expansion and contraction, realizes multi-channel video structural analysis.

CAISA Chip

Edge Computing Platforms	Nebula AI Edge Station	AI Computing IPC	AI Computing Servers
Appearance			
Video Streams	Structural analysis of 4/8 video streams	Structural analysis of 16/32 video streams	Structural analysis of 64 video streams

Xinsen technologies

Application Deployment Process



Front-end Data Collection | **Edge Data Transfer** | **AI Analystics and Management** | **System Integration**

Xinsen technologies

ASMA is Adoptable for Various Industry Sectors

More than 20+ industry and 2000+ projects implementation experience