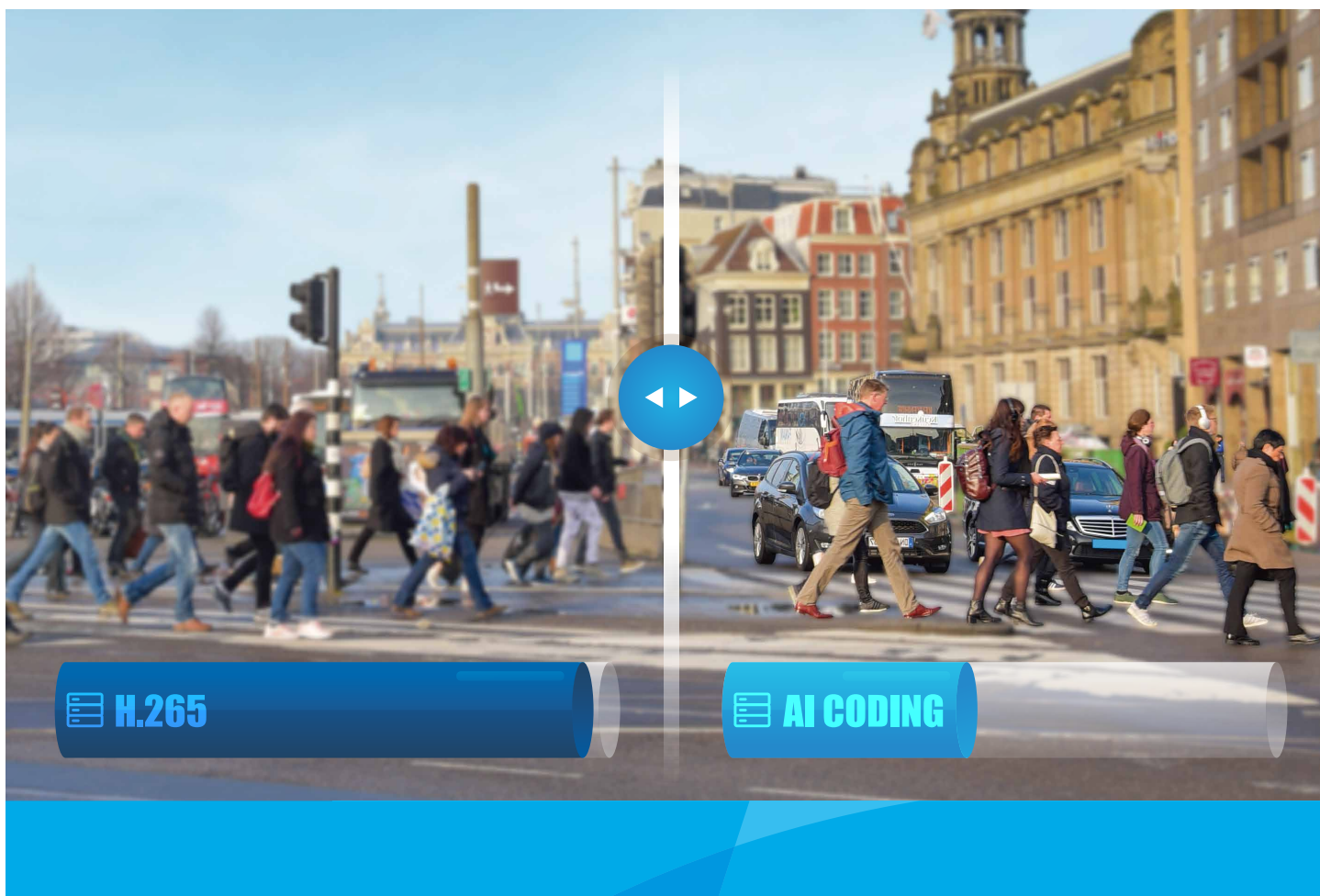# Clearer Target, Lower Bitrate

Dahua WizSense XVR and IPC Powered by
AI Coding Technology

Cost-saving
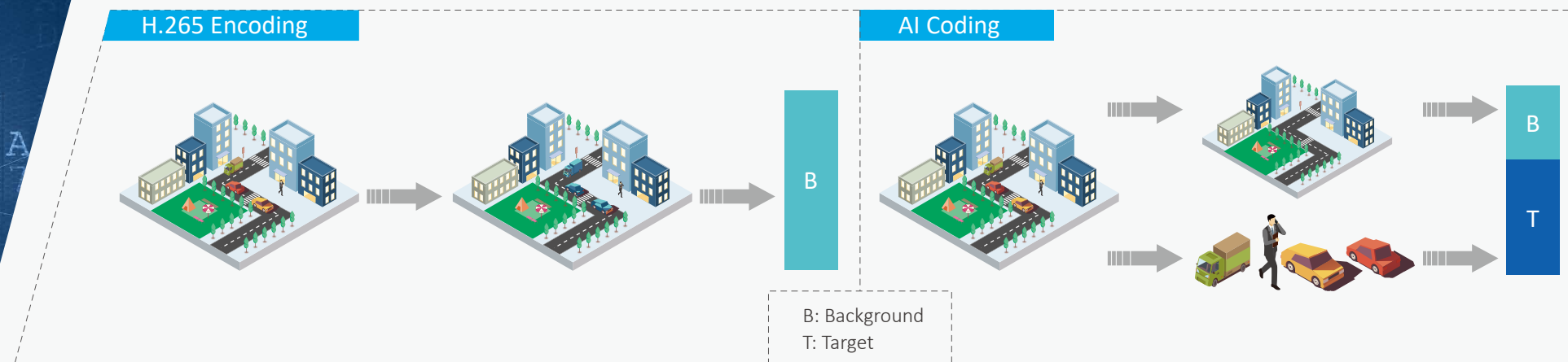
Compatible

Stable

# What is AI Coding?

As video moves toward high definition, how to save storage costs while maintaining image quality has become one of the users' concerns. Dahua AI Coding puts emphasis on human and vehicle while encoding, ensuring the target image quality while saving 50% bandwidth and storage costs compared with H.265.

H.265 Encoding

AI Coding

B: Background
T: Target

With same low bit rate, AI Coding gives bit rate allocation priority to human and vehicle, effectively improving key target details.
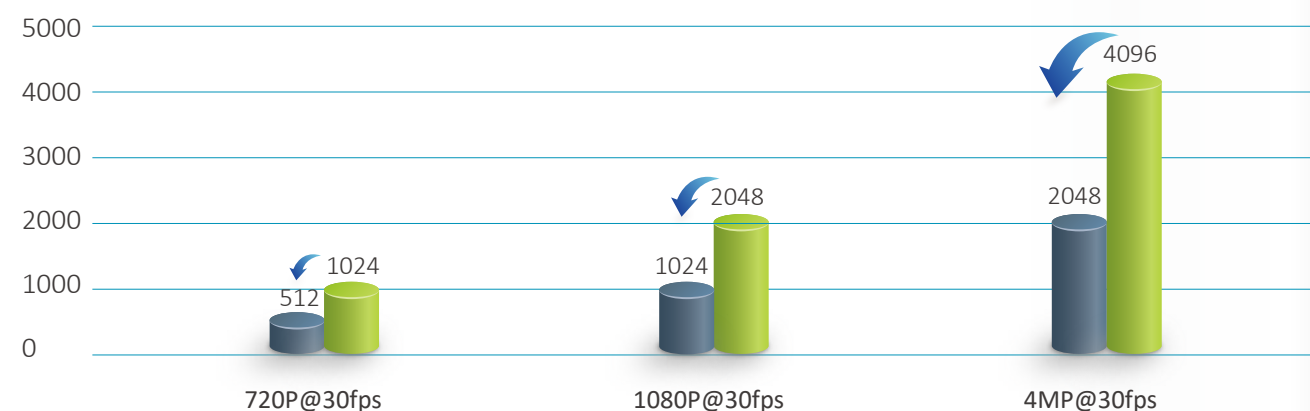
## Product Features

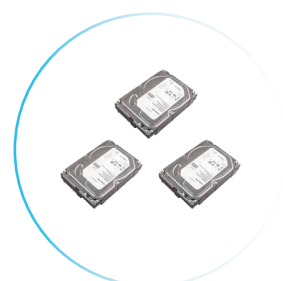### • Cost-saving
Saves 50% of bandwidth and storage space!

*\* The AI Coding function is enabled by default in the newest firmware version.*

AI Coding    H.265

**Kbps**

| | | |
|---|---|---|
| 5000 | | 4096 |
| 4000 | | |
| 3000 | | |
| 2000 | 2048 | 2048 |
| 1000 | 1024  1024 | |
| 512 | | |
| 0 | | |
| 720P@30fps | 1080P@30fps | 4MP@30fps |

Storage for 1 month of video footage

**2MP/8-ch**

AI Coding: 3T          H.265: 6T          H.264: 12T

### • Compatible
Through CBR (Constant Bit Rate), AI Coding does not lose its decoding compatibility when integrated with 3rd party players or platforms.

Camera          Recorder          **3rd Party Platform**

### • Stable
AI Coding based on CBR requires fixed bandwidth construction, ensuring system stability.

H.265+

AI Coding

VBR (Variable Bit Rate) has high burstiness, which makes it difficult to calculate the required bandwidth.

Makes it easy to deploy bandwidth and improves bandwidth utilization.

## Solutions and Products

Highlights:

- Saves more than 50% bandwidth and storage costs compared with H.265 while maintaining valuable target image details.

*\* The abovementioned bit rate is based on XVR settings. In the analog system, the preview video is the original bit stream. But the IP system video also needs to be encoded and decoded. Thus, the default bit rate of IPC only achieves 25% saving compared to H.265, ensuring excellent image quality.*

- Allows video decoding by Dahua or 3$^{rd}$ party platforms with full compatibility.

- Eliminates users' worries regarding sudden changes in bitstream.

DSS Express

DSS Express
(DSS Mobile)

DMSS

WizSense XVR /
Normal NVR

Normal HDCVI Camera / WizSense IPC

## Application Scenarios

Warehouse

Casino

Shopping Mall

Museum

## Products Series

**Cooper-I Series**
- Up to All channel SMD Plus
- Up to All channel AI Coding

**XVR4000-I Series (1080N/720P)**
- Up to All channel SMD Plus
- Up to All channel AI Coding

**XVR5000-I3 Series (5M-N/1080P)**
- Up to All channel SMD Plus
- Up to 1 channel video stream Perimeter Protection
- Up to 1 channel video stream Face Recognition
- Up to All channel AI Coding

**XVR5000-4KL-I3 Series (4K-N/5MP)**
- Up to All channel SMD Plus
- Up to 1 channel video stream Perimeter Protection
- Up to 1 channel video stream Face Recognition
- Up to All channel AI Coding

**XVR5000-I2 Series (5M-N/1080P)**
- Up to All channel SMD Plus
- Up to 2 channel video stream Perimeter Protection
- Up to 2 channel video stream Face Recognition
- Up to All channel AI Coding

**XVR5000-4KL-I2 Series (4K-N/5MP)**
- Up to All channel SMD Plus
- Up to 2 channel video stream Perimeter Protection
- Up to 2 channel video stream Face Recognition
- Up to All channel AI Coding

**XVR7000-4K-I2 Series (4K)**
- Up to All channel SMD Plus
- Up to 2 channel video stream Perimeter Protection
- Up to 2 channel video stream Face Recognition
- Up to All channel AI Coding

**IPC 3 Series (2M/4M/5M/8M)**
- SMD 3.0, AI Coding, Perimeter Protection

**IPC 5 Series (2M/4M/5M/8M)**
- SMD 3.0, AI Coding, Perimeter Protection, Face Detection

*\* Design and specifications are subject to change without notice.*

Ver. 2, Mar. 2021