

Invented for life



# 5100i camera portfolio

Enhancing indoor and outdoor building security



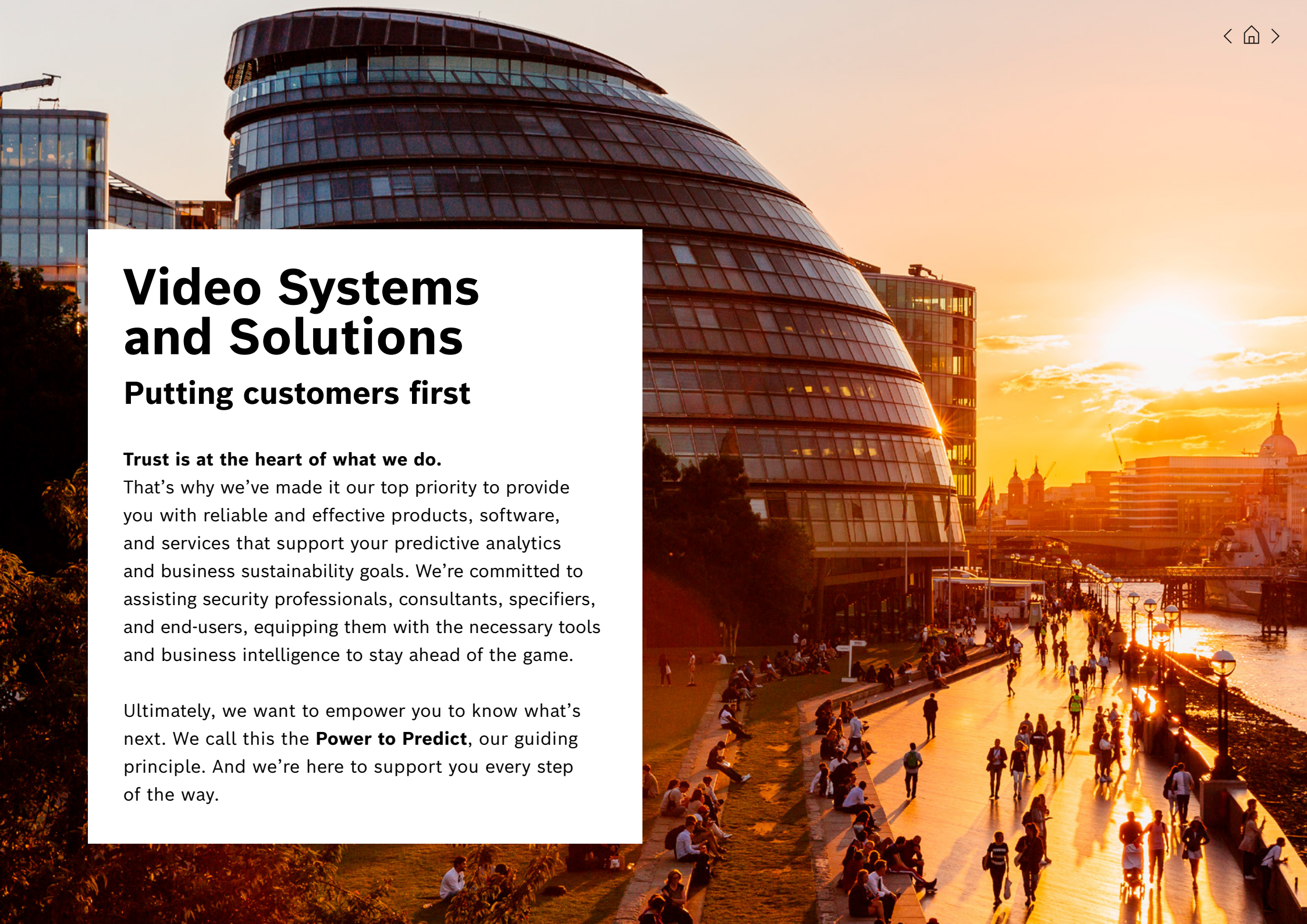
# Video Systems and Solutions

## Putting customers first

### **Trust is at the heart of what we do.**

That's why we've made it our top priority to provide you with reliable and effective products, software, and services that support your predictive analytics and business sustainability goals. We're committed to assisting security professionals, consultants, specifiers, and end-users, equipping them with the necessary tools and business intelligence to stay ahead of the game.

Ultimately, we want to empower you to know what's next. We call this the **Power to Predict**, our guiding principle. And we're here to support you every step of the way.





Upgrade your building security to improve operational efficiency and keep people and property safe using the 5100i camera portfolio. A trio of form factors with multiple models to choose from offer you maximum flexibility to match the right camera with the right application – indoors or out.

**Reliable analytics**

All 5100i cameras are AI-enabled. They are designed to provide reliable analytics for highly accurate data, are easy to use, future proof, and integrate seamlessly with various video management systems.

**Fast and easy to install**

With a fast and easy installation and commissioning concept, setup is a breeze, and remote maintenance is simple and less costly – with free and paid options for remote device management services.

**Secure and cyber resilient**

Rest assured, sensitive video data remains safe and cyber-resilient with the highest data security measures.

**FLEXIDOME 5100i  
fixed dome**



**Robust and vandal proof**

The cameras are housed in a durable casing resistant to rain, dust, and tampering. They meet regulatory standards, such as IP, NEMA, and IK-ratings, to withstand shock, vibration, and high impacts while protecting against environmental elements such as water and corrosion.

**FLEXIDOME  
panoramic 5100i**



**DINION 5100i  
IR bullet**



**High-quality imaging**

The 5100i cameras are designed for optimal performance indoors and out. Starlight technology increases sensitivity for enhanced colors in low-light. High Dynamic Range (HDR) ensures perfect exposure in scenes with both bright and dark areas.

# FLEXIDOME 5100i fixed dome cameras

## When you see more, you know more

The FLEXIDOME 5100i cameras are ideal for security professionals seeking reliable intrusion detection in and around buildings. Their dome-shaped housing allows them to fit into tight spaces, resist high impacts from vandalism, and discreetly monitor surroundings. The high-quality imaging of the FLEXIDOME 5100i cameras extends the value of AI by capturing details even in challenging lighting. They deliver 24/7 performance, thanks to starlight, HDR, and intelligent infrared (IR) illumination. The cameras employ a simple three-step installation concept and require no calibration for person or vehicle detection, saving installers valuable time.

### Applications

- Secure building interiors
- Secure entry and exit points with reliable alerts for line crossing, loitering, and person and vehicle detection
- Precise people counting with deep learning to help improve safety and security
- Manage the flow of people entering and exiting buildings
- Enhance the customer experience by identifying congested areas



More information  
[FLEXIDOME 5100i](#)



### Gun Detection System

The Gun Detection System is the first to pair video and audio AI to prioritize proactive security and safety involving guns at schools and buildings. The near-invisible system offers a multi-layered approach, while enabling a smooth, frictionless flow and welcoming atmosphere. When someone brandishing a gun approaches a school or building, the system is designed to promptly alert personnel who can verify the gun and take proactive measures. If a gun is not visually detected, audio AI, the second layer, is designed to detect and classify gunshots while estimating the direction from which the sound originates. This capability may enable quick and appropriate responses. And since the system's visual and audio layers are camera-based, security staff can also rely on high-quality video footage for forensics supporting first responders.

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**Layer 1**  
**Video AI: FLEXIDOME 5100i +**  
**IVA Pro Visual Gun Detection**



More information  
[Gun Detection System](#)

# FLEXIDOME panoramic 5100i

## Elevating situational awareness

The FLEXIDOME panoramic 5100i cameras offer 360-degree coverage without blind spots for excellent situational awareness and an integrated microphone array. Three MEMS acoustic sensors can capture sound from any direction and provide directional information, guiding the operator to the area of interest. The cameras pair video analytics with audio analytics, helping security staff see with sound, and acts as a second layer for the Gun Detection System.

### Applications

- Detect availability of parking spots
- Recognize and detect stationary objects or objects that have been removed e.g. mandatory fire equipment
- Monitor behaviors in sensitive areas, such as entrances and lobbies in border control stations, airports, and banks
- Detect and classify sounds and identify the direction of the source when Intelligent Audio Analytics is enabled



**More information**  
[FLEXIDOME panoramic 5100i](#)



### Intelligent Audio Analytics

Intelligent Audio Analytics is based on SoundSee technology, an audio AI developed by Bosch, used by the International Space Station to identify imminent failures by analyzing machine noise. Application-specific sound detectors are trained for various environments and background noises to detect sound signatures of gunshots, smoke alarms (T3), and carbon monoxide alarms (T4) while ignoring false positives, like slamming car doors or banging carts. The detectors generate metadata that combines with Intelligent Video Analytics metadata into a single stream to the client or server. When a sound event occurs, the detectors trigger an alarm. There is no need to record audio, as it is possible to examine sound spectrogram only, ensuring privacy is protected.

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**Layer 2**  
**Audio AI: FLEXIDOME panoramic 5100i**  
**+ Intelligent Audio Analytics Gunshot**  
**Detector**



**More information**  
[Intelligent Audio Analytics](#)

# DINION 5100i IR

## Reliable outdoor detection and durability 24/7

The DINION 5100i IR bullet cameras are designed for building applications that demand reliable outdoor detection and deterrence. These cameras easily capture all the details no matter how challenging the lighting. Their distinctive bullet shape deters unwanted behavior and promotes a sense of safety.

They come pre-installed with Intelligent Video Analytics Pro (IVA Pro) Buildings. Based on deep learning, the software can accurately detect people and vehicles in crowded areas, especially in and around buildings. It ensures high resilience to false triggers such as vehicle headlights or shadows, rain, wind, moving foliage, and sun reflections. As an option, when traffic monitoring or long-range intrusion detection alongside perimeters is required, a license can be added for IVA Pro Perimeter or Traffic.

The durable aluminum housing has a weatherproof IP66/67 rating to ensure reliable performance of the cameras in all outdoor conditions. With an IK10 rating, the cameras withstand high impacts, shocks, vibrations, and vandalism.

### Applications

- Secure building surrounding with advanced intrusion detection
- Get precise insights into vehicles and people near the building
- Monitor outdoor areas around buildings, in parking lots, and other locations



**More information**  
[DINION 5100i IR](#)



### High-quality imaging day and night

- Starlight technology increases sensitivity for enhanced colors in low light
- High Dynamic Range (HDR) technology ensures perfect exposure even in scenes with both bright and dark areas
- Intelligent IR ensures objects of interest are perfectly exposed up to 60 meters (197 feet) in total darkness and low light
- An electronic image stabilization (EIS) system that relies on gyroscopic sensors effectively reduces motion caused by wind or vibration, resulting in capturing better images
- The adjustable sunshield prevents overexposure at certain times of day
- The camera's flat window eliminates image distortion

### Corridor mode

A corridor mode efficiently monitors narrow vertical areas like sidewalks, pedestrian walkways, and building exteriors. This feature optimizes visibility by changing the aspect ratio from 16:9 to 9:16, eliminating unnecessary background information, and focusing on important viewing areas. The result is video footage that is adapted perfectly to the monitored area, maximizing image quality while eliminating bandwidth and storage waste.

# Intelligent Video Analytics

We offer a menu of application-specific video analytics that you can choose from to tailor the intelligence of your cameras in a way that best suits your needs.

Some analytics come pre-installed as standard; others can be licensed for use with specific cameras. But whichever mix of solutions you choose, they all deliver highly-accurate data, are easy to use, future proof, and integrate seamlessly with various video management systems.



## Intelligent Video Analytics (IVA)

- AI based detectors for object detection and classification in crowded scenes
- Mission-critical, long-distance intrusion detection in extreme weather conditions
- Traffic monitoring for intersections, highways and tunnels
- High-performance people counting and asset protection
- Live alarming and forensic search

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**FLEXIDOME panoramic 5100i** ■

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## IVA Pro Buildings

- Accurate detection and classification of persons and vehicles in busy scenes
- No calibration
- High resilience to known false triggers such as vehicle headlights and challenging weather conditions
- Easy evidence retrieval with forensic search

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**FLEXIDOME 5100i** ■

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**DINION 5100i IR** ■

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## IVA Pro Perimeter

- Reliable long-range intrusion detection alongside perimeters, even in extreme weather and challenging conditions
- Based on advanced background subtraction for reliable detection of moving objects, including crawling persons
- Easy configuration and calibration

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**FLEXIDOME 5100i** ✓

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**DINION 5100i IR** ✓

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## IVA Pro Traffic

- Detects, classifies, and locates vehicles, motorcycles, bicycles, trucks, and buses in heavy traffic, day or night, and delivers high accuracy even in the most challenging situations
- Pedestrian detection – even in crowded scenes – to enable safety solutions for vulnerable road users
- Industry-proven to deliver accuracy levels beyond 95% for real-time event detection and aggregation of valuable data
- Autocalibration comes as standard for IVA Pro Traffic

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**FLEXIDOME 5100i** ✓

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**DINION 5100i IR** ✓

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## IVA Pro Visual Gun Detection

- Designed to detect people brandishing guns
- It may help reduce reaction time in hazardous situations
- Privacy protection: All computations are carried out on-edge, with no video data being required to leave the camera
- Easy installation: No additional server or camera calibration necessary
- Easy evidence retrieval with forensic search

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**FLEXIDOME 5100i** ✓

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■ Pre-installed     ✓ Available via license



**More information**  
[Video Analytics solutions](#)

# A quick glance Indoor and outdoor building security

The 5100i camera portfolio is designed to transform your buildings into smart, efficient, and safe environments. Their AI capabilities go beyond simple surveillance, enabling them to understand what they're seeing, and add meaning to captured video with metadata that enhances your building security.



Office  
buildings



Government  
buildings



Education



**More information**  
about [Solutions for Building Security](#)







## The power of a layered approach for highly reliable building security

### 1 Secure building surroundings

Get precise insights into vehicles and people near the building while ignoring false positives such as shadows, small animals, and window reflections. IVA Pro Buildings provides reliable alerts for line crossing, loitering, and person and vehicle detection, giving you a secure, efficient way to monitor threats.

- DINION 5100i IR with + IVA Pro Buildings
- FLEXIDOME 5100i + IVA Pro Buildings

### 2 Manage parking spaces

Keep parking lots secure and efficient near your buildings. IVA Pro Buildings is designed to detect moving or standing people and parked or moving vehicles. It provides accurate counts of free or taken parking spaces to support parking operations and help drivers find open parking faster. It can automatically alert operators to illegal parking any suspicious activity that could pose a potential threat.

- DINION 5100i IR + IVA Pro Buildings
- FLEXIDOME 5100i + IVA Pro Buildings

### 3 Secure entrances and exits

All 5100i cameras raise alerts for line crossing and space occupancy. They also cover emergency exits and can detect if objects are left behind in a specific area.

- FLEXIDOME 5100i + IVA Pro Buildings

### 4 Reliably distinguish and count people in crowded scenes

With IVA Pro Buildings operators can use real-time data for people counting applications to understand what happens at a given location. Having reliable operational insights can improve safety and security by providing early warnings for people crossing a virtual perimeter line and effectively managing the flow of people entering and exiting buildings. It also can enhance the customer experience by identifying congested areas, allowing for preemptive staffing with more personnel, which reduces customer friction.

- FLEXIDOME panoramic 5100i + IVA
- FLEXIDOME 5100i + IVA Pro Buildings

### 5 Monitor sensitive zones

Keep restricted areas such as battery rooms, power supply or server rooms secure with alerts based on access authorization or time of day, loitering, and left or removed objects. Our masked object detection and classification can secure your premises while safeguarding people, privacy and sensitive information (GDPR).

- FLEXIDOME 5100i + IVA Pro Buildings

### **Bosch Security and Safety Systems**

Protecting lives, buildings and assets is our aim. Our product portfolio includes video security, intrusion detection, fire detection and voice evacuation systems as well as access control and management systems. Professional audio and conference systems for communications of voice, sound and music complete the range.

### **Bosch Security and Safety Systems**

To learn more about Video Systems please visit [www.boschsecurity.com](http://www.boschsecurity.com)

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