

Eagle Eye Application Note - AN056

Applications of Eagle Eye Anywhere Cabinets

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Target Audience

This Application Note is intended for installers, IT professionals, and security operators who will be deploying and managing Eagle Eye Anywhere Cabinets in remote or challenging environments. It assumes a moderate to advanced level of technical knowledge, particularly in wireless networking, solar-powered systems, and cloud-based video management. The content is particularly relevant for mid-to-large-sized customers, including those in industries such as construction, agriculture, utilities, and public safety. This app note is also applicable to resellers, providing them with detailed product knowledge to better support their clients in selecting and deploying the right surveillance solutions. For resellers, understanding the Cabinet Systems' unique qualities—such as wireless connectivity, minimal installation requirements, and operational adaptability—will be crucial in communicating those qualities to customers.

Introduction

The Eagle Eye Anywhere Cabinet is a comprehensive, remote video surveillance solution designed for environments lacking wired internet or power. This system is particularly suited for locations such as agricultural sites, construction sites, parks, and industrial facilities, where traditional surveillance systems may not be feasible.

Key Features:

- **Direct-to-Cloud Connectivity:** The system connects directly to the Eagle Eye Cloud VMS (Video Management System) via 4G LTE cellular communication, eliminating the need for a wired internet connection, and ensuring video is securely transmitted to the cloud without the need for on-site bridges or connections.
- **Solar-Powered Operation:** The system includes a solar battery and controller, enabling it to operate in remote locations without access to wired power. The solar panel, although not included in the base system, can be mounted separately and is designed to ensure at least 99% recording reliability in areas with strong sunlight.
- **AI and Security:** The system employs cloud-based AI for smart video search and filtering, enhancing its capability to detect and respond to specific events. It also includes Eagle Eye

Complete Privacy Encryption™ technology, ensuring that all video footage is securely encrypted and private.

- **Remote Access and Notifications:** Users can access live and recorded video streams remotely from anywhere in the world. The system also provides real-time notifications and alerts, which can be triggered by AI-driven features such as person or vehicle detection.
- **Flexible Deployment:** The system can be purchased via capital expenditure (CapEx), or as an operating expenditure (OpEx) through an Eagle Eye Complete subscription. Eagle Eye Complete covers hardware, cellular modem management, and data plans, along with lifetime repair and replacement services.

Remote and Challenging Environments

Eagle Eye Anywhere Cabinets are particularly well-suited for scenarios where there is no access to electricity or where the distance from network routers makes traditional connectivity impractical. Here is how the system can be effectively utilized across various industries:

1. Remote Surveillance Coverage

Eagle Eye Anywhere Cabinets leverage solar power and 4G LTE connectivity, enabling cameras to be installed far from power sources and network routers. This allows for comprehensive monitoring across expansive or remote sites, regardless of their size or location.

2. Deterrence and Incident Response

Remote and isolated sites are often vulnerable to theft, vandalism, and unauthorized access, particularly during off-hours. The system's integrated AI features, such as person and vehicle detection, can trigger real-time alerts and notifications to security personnel, allowing for immediate response to potential incidents. The LED deterrence lights included with the system can also serve as a visible warning to deter criminal activity.

3. Secure and Encrypted Video Storage

Even in areas without traditional connectivity, the Eagle Eye Cabinet System ensures that all video footage is securely stored in the cloud, thanks to its direct-to-cloud connectivity. This eliminates the risk of footage being tampered with or lost due to physical damage to on-site storage devices. The system's robust encryption technology further ensures that all data is kept private and secure, making it ideal for industries where data integrity is critical.

4. Flexibility in Installation and Scaling

The system's wireless and solar-powered design allows for flexible installation across various parts of a site. The system can be easily scaled by adding more camera units without the need for extensive cabling or infrastructure upgrades, providing a versatile solution for growing or changing needs.

5. Cost-Effective Monitoring Solution

By eliminating the need for extensive cabling, power infrastructure, and on-site storage, the system reduces both upfront installation costs and ongoing maintenance expenses. The available OpEx subscription option further simplifies budgeting.

6. Solar-Powered Reliability

In remote locations where electrical power is not readily available, the system's solar-powered operation ensures continuous monitoring. With its high-efficiency solar panels and battery capacity supporting up to three days of operation without solar charging, the system is designed to maintain near-constant surveillance, even in less-than-ideal weather conditions.

7. Remote Access for Security Teams

The ability to access live and recorded video streams remotely is crucial for security teams managing sites across various industries. With the Eagle Eye system, security personnel can monitor activities from any location, ensuring that they can respond to incidents swiftly, whether they are on-site or off-site, thus improving overall operational efficiency.

8. Compliance and Liability Management

The Eagle Eye Cabinet System helps document incidents with high-quality video evidence, which can be critical in resolving disputes, addressing insurance claims, or complying with local regulations, thereby protecting businesses and operations from potential legal and financial repercussions.

Applications of Eagle Eye Anywhere Cabinets

Eagle Eye Anywhere Cabinet Systems are highly versatile and can be applied in various industries where traditional power and network infrastructure are unavailable or unreliable. Here are the top five applications:

1. Parking Lots

- **Use Case:** Monitor parking lots, especially in scenarios where there is no access to electricity or where the distance from site Wi-Fi routers makes traditional connectivity impractical.
- **Benefits:** For large parking lots, especially those located in remote or peripheral areas, ensuring complete surveillance coverage can be challenging. Anywhere Cabinets provide a solution by leveraging solar power and 4G LTE connectivity, enabling cameras to be installed far from power sources and network routers. The system's integrated AI features, such as person and vehicle detection, can trigger real-time alerts and notifications to security personnel, allowing for immediate response to potential incidents. The LED deterrence light included with the system can also serve as a visible warning to criminals.

2. Construction Site Surveillance

- **Use Case:** Monitor ongoing construction activities, secure valuable equipment, and ensure worker safety, including in remote or temporary locations.
- **Benefits:** The system can be easily deployed across large or segmented sites, providing real-time monitoring and alerts without the need for permanent

infrastructure. This is crucial for preventing theft, ensuring compliance with safety regulations, and documenting construction progress.

3. **Agriculture and Farming Operations**

- **Use Case:** Secure and monitor agricultural fields, greenhouses, and equipment storage areas that are often far from power sources or network connections.
- **Benefits:** The solar-powered system provides continuous surveillance, helping to deter theft, monitor livestock, and protect crops. It can also assist in monitoring agricultural activities for better management and efficiency.

4. **Oil, Gas, and Utility Infrastructure**

- **Use Case:** Monitor critical infrastructure such as oil wells, gas pipelines, water treatment plants, and power stations located in remote areas.
- **Benefits:** The system enhances security and operational oversight in these high-risk environments, where quick response to potential issues like leaks, trespassing, or equipment failure is essential. The direct-to-cloud feature ensures secure data storage, even in remote locations.

5. **Outdoor Recreational Areas and Parks**

- **Use Case:** Monitor public parks, recreational areas, and other outdoor spaces where providing security is challenging due to a lack of infrastructure.
- **Benefits:** The system can be deployed in locations such as hiking trails, camping sites, or playgrounds, helping to enhance visitor safety, deter vandalism, and ensure compliance with park regulations. The system's durability and weather resistance make it ideal for these outdoor settings.

These applications demonstrate the system's adaptability and effectiveness in environments that require reliable, remote video surveillance without traditional infrastructure.

Diagrams and Specifications

Each Eagle Eye Cabinet System includes several key components: a weather-resistant camera, a solar-powered battery system, and a cellular modem, all housed within a robust, IP65-rated enclosure. The cabinet itself measures 11.8 × 7.9 × 6.7 inches (300 × 200 × 170 mm) and weighs 13.8 to 13.9 lbs (6.26 to 6.3 kg), depending on model. The system's solar panel, measuring 41.8 × 20.9 × 1.4 inches (1062 × 530 × 35 mm) and weighing 14.1 lbs (6.4 kg), provides up to 100W of power, ensuring reliable operation even in remote areas. The solar-powered battery has a capacity of 30 Ah (360 Wh), capable of supporting the system for up to three days without recharging, and the camera's typical power consumption is just 5W. Additionally, the system includes a 64GB SD card for local storage, LED deterrence lights, and a 4G LTE cellular modem for direct-to-cloud video transmission. It supports camera models DB13 and DX01, and 4G LTE (T-Mobile) connectivity. The Eagle Eye Anywhere Cabinets offers unlimited data plans through Eagle Eye Networks, ensuring continuous, secure surveillance and encrypted video storage in the cloud.

Illustration of mounted Eagle Eye Anywhere Cabinet with solar panel and NEMA enclosure attached to camera is shown below

Eagle Eye Anywhere Cabinets SKUs:

1. EN-SS212wcs-1DB13

- Description: Eagle Eye "Anywhere" Camera Direct Cabinet System DB13
- Connectivity: Wi-Fi + Cellular (4G LTE via T-Mobile)
- Power: Solar Battery (30 Ah, 360 Wh)
- Storage: 64GB SD Card
- Additional Features: LED Deterrence Light
- Solar Panel: Not included (sold separately)
- Dimensions (Cabinet): 11.8 x 7.9 x 6.7 in (300 x 200 x 170 mm)
- Weight (Cabinet): 13.8 lbs (6.26 kg)
- Ingress Protection: IP65

2. EN-SS212wcmsh-1DB13

- Description: Eagle Eye "Anywhere" Camera Direct Cabinet System DB13 with Siren
- Connectivity: Wi-Fi + Cellular (4G LTE via T-Mobile)
- Power: Solar Battery (30 Ah, 360 Wh)
- Storage: 64GB SD Card
- Additional Features: LED Deterrence Light, Siren
- Solar Panel: Not included (sold separately)
- Dimensions (Cabinet): 11.8 x 7.9 x 6.7 in (300 x 200 x 170 mm)
- Weight (Cabinet): 13.8 lbs (6.26 kg)
- Ingress Protection: IP65

3. EN-SS212wcs-1DX01

- Description: Eagle Eye "Anywhere" Camera Direct Cabinet System DX01
- Connectivity: Wi-Fi + Cellular (4G LTE via T-Mobile)
- Power: Solar Battery (30 Ah, 360 Wh)
- Storage: 64GB SD Card
- Additional Features: LED Deterrence Light
- Solar Panel: Not included (sold separately)
- Dimensions (Cabinet): 11.8 x 7.9 x 6.7 in (300 x 200 x 170 mm)
- Weight (Cabinet): 13.9 lbs (6.3 kg)
- Ingress Protection: IP65



4. EN-SS212wesh-1DX01

- Description: Eagle Eye "Anywhere" Camera Direct Cabinet System DX01 with Siren
- Connectivity: Wi-Fi + Cellular (4G LTE via T-Mobile)
- Power: Solar Battery (30 Ah, 360 Wh)
- Storage: 64GB SD Card
- Additional Features: LED Deterrence Light, Siren
- Solar Panel: Not included (sold separately)
- Dimensions (Cabinet): 11.8 x 7.9 x 6.7 in (300 x 200 x 170 mm)
- Weight (Cabinet): 13.9 lbs (6.3 kg)
- Ingress Protection: IP65

5. EN-M40-1

- Description: Eagle Eye VMS M40 Cellular Modem Management Monthly Subscription
- Details: Subscription for managing 4G LTE connectivity through T-Mobile for Eagle Eye Anywhere Cabinets
- Data Plan: Not included (sold separately, see EN-DPMM-001-1)

6. EN-DPMM-001-1

- Description: Eagle Eye Cellular Modem Data Plan NA U001 for MM01 Monthly Subscription
- Details: Unlimited data plan for 4G LTE connectivity through T-Mobile, specific to Eagle Eye Anywhere Cabinets

7. EN-SZ001

- Description: Eagle Eye "Anywhere" Solar Panel SZ01 100W w/Pole Mount
- Power Output: 100W
- Dimensions: 41.8 x 20.9 x 1.4 in (1062 x 530 x 35 mm)
- Weight: 14.1 lbs (6.4 kg)
- Mounting: Includes pole mount for solar panel installation

These SKUs and their details provide a comprehensive overview of the Eagle Eye Anywhere Cabinets components, facilitating easy selection and ordering in an engineering catalog.