Eagle Eye Application Note - AN055

Multi-Sensor vs. Stitched View Cameras and the Impact on Billing

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Target Audience

This Application Note explores the key differences between multi-sensor cameras and stitched view cameras, focusing on how they impact sensor configuration, video streams, and billing considerations. This information is valuable for resellers and sales teams as they help their customers choose the optimal solution for their needs.

Background

Many camera manufacturers offer multi-sensor cameras. These cameras use multiple camera sensors within a single camera to produce video images. They can produce individual images per sensor, or stitch the images together to provide 180° or 360° panoramic images. Depending on the camera, you may pull up one or a combination of these images. On some cameras, you could access as many as seven different views from a single camera.

Multi-Sensor Camera vs. Stitched Camera

- **Multi-Sensor Camera:** These cameras have multiple independent image sensors, each capturing a specific field of view, and generating a separate video stream. Each sensor can be individually adjusted, allowing for fine-tuned exposure, white balance, and other parameters. This allows for independent recording and analysis of each camera's view. Users can choose to record specific streams or combine them into a single view.

- **Stitched View Camera:** These cameras utilize a single, wide-angle sensor or multiple sensors to capture panoramic views. Stitching software combines images from multiple areas of the sensor to create a wider virtual field of view. Adjustments typically apply to the entire image, limiting individual sensor control. A stitched view camera produces a single video stream representing the combined view from the wide-angle sensor or multiple sensors. While offering

a broader perspective, detailed analysis of specific areas within the stitched image might be challenging.

How Camera Choice Impacts Billing

- **Multi-Sensor Camera:** Eagle Eye billing for multi-sensor cameras is often based on the number of active video streams. As each multi-sensor stream is seen as an independent camera, we bill for each stream/view. The views will follow our regular subscription model of billing based on resolution and retention (e.g., 4 MP for 30 days of retention would be HD4-D30). If you are pulling four individual 4 MP views from a multi-sensor camera and want to store them for 30 days, you will be billed 4 × HD4-D30. This can be advantageous for scenarios where only specific areas require recording, or the need for high-resolution recording is paramount.

- **Stitched View Camera:** Since stitched view cameras generate a single video view, billing typically reflects this single view, regardless of the wider field of view. This can be cost-effective for covering a large area but may not be ideal when detailed analysis of specific zones is crucial.

Activation

To add the multiple views generated by a multi-sensor camera, simply select the relevant views from the “Available Cameras” field on the Eagle Eye dashboard. The views from a particular camera will be distinguishable by their common IP address. Note: Some multi-sensor cameras may require more power than POE+ can provide. Check the camera specification sheet to be sure that an additional power source isn’t required.

Additional Considerations

Choosing between a multi-sensor camera and a stitched camera depends on specific security needs. Multi-sensor cameras offer more granular control over individual sensor views and recording options, while stitched cameras provide a broader perspective with potentially lower video stream billing. Other factors to consider:

- Resolution: Both camera types offer varying resolutions, impacting image quality and storage requirements.
- Installation complexity: Multi-view cameras may require more complex installation due to managing multiple sensor positions.
- Latency: Stitching software can introduce slight latency compared to multi-sensor cameras with independent streams.

Support

To find out how many views Eagle Eye Cloud VMS can support from a particular multi-sensor camera, check our compatibility list by going to een.com/cameras. Find supported views under the “Camera Features” column.