

SiteTrax.io Gate - Camera Installation Requirements and Guidelines



This document outlines the key responsibilities, expectations, and requirements when deploying a SiteTrax.io Virtual Gate camera system. If you have any questions regarding any of the topics covered, feel free to reach out to [SiteTrax.io support](#).

SiteTrax.io Responsibilities

SiteTrax.io will be responsible for the following aspects of the Virtual Gate installation:

1. Video Delivery

SiteTrax.io will ensure that the video feed from the camera is transmitted to our cloud servers. We will also configure any necessary webhook destinations as required. For more information on integrating with the SiteTrax REST API, please refer to the relevant knowledge base article.

2. Motion/Object Detection, Resolution, and Field of View

The SiteTrax.io team will configure motion detection based on the camera's orientation and field of view at each site. Since traffic patterns can vary by facility, SiteTrax.io will provide recommendations for camera orientation and layout to optimize performance.



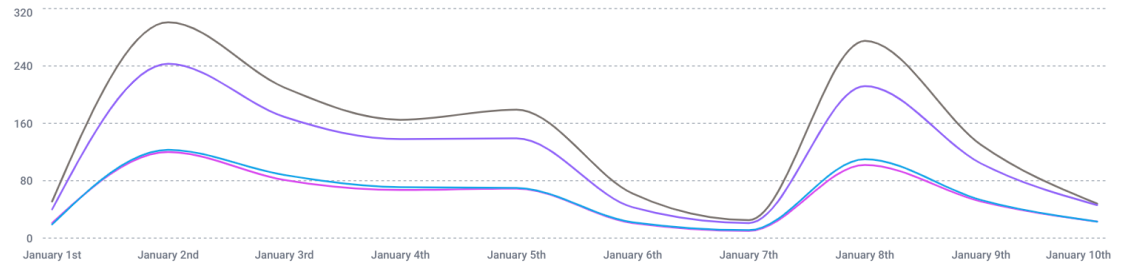
3. Camera Tuning (Day/Night Mode)

Proper lighting is crucial for accurate object detection. SiteTrax.io can fine-tune cameras for lower light conditions and offer guidance on optimal lighting practices during setup.

4. Access to SiteTrax.io "Digital Twin" Results

The SiteTrax.io Service Portal (<https://service.sitetrax.io>) provides a list of all objects detected by the Virtual Gate camera, including captured images and original video recordings.

- Home
- Videos
- Assets
- Integrations



Assets

Total Assets

1,155

Daily Unique Assets

Containers

565

International & Domestic

Chassis

590

Mounted & Bare

Scans

Videos Recorded

1139

Requests Processed

Upload Volume

17 GB

Data Uploaded

Scan Length

8.5 H

Total Scan Time

Customer Responsibilities

The customer is responsible for the following aspects when installing a SiteTrax.io Virtual Gate camera:

1. Infrastructure

Customers must ensure appropriate infrastructure is in place for camera installation, including power and internet connectivity. While a single camera may cover multiple directions, it is recommended to deploy dedicated cameras for each specific direction (e.g., in-gate, out-gate, or multiple lanes).

2. Minimum One Camera per Lane

For optimal performance, SiteTrax.io recommends installing one camera per lane. Using a single camera for both in-gate and out-gate operations or for covering multiple lanes is not recommended. Best practice is to deploy two Virtual Gate cameras per lane to capture traffic effectively.

3. Maintenance

Customers are responsible for ongoing maintenance, such as cleaning the camera lens and making repairs if the camera is damaged due to environmental factors or accidents.

4. Firmware and Application Upgrades

Occasionally, firmware or application updates may be required to ensure the camera has access to the latest features. SiteTrax.io will provide instructions on how to connect to the camera and perform upgrades. The customer is responsible for installing updates or providing remote access to SiteTrax.io for these tasks.

5. Data Storage

If raw video data and interpreted images need to be stored for longer than 90 days, SiteTrax.io recommends that customers work with the team to store the data on a customer-provided storage solution, such as Amazon AWS S3 buckets.

6. Data Destination

Once SiteTrax.io processes the "digital twin" of the detected object, the customer must maintain the final destination of this data. SiteTrax.io partners with providers that offer turn-key visualization platforms (e.g., YMS, WMS, TMS, TOS, ERP) to receive and process SiteTrax.io API data. Please refer to the [SiteTrax.io Terms of Service](#) for more information.

7. Camera Mounting and Orientation

After mounting the camera, adjustments may be needed to ensure optimal height, orientation, and angle. For example, to capture the back of containers and chassis, SiteTrax.io recommends mounting the camera at a height of approximately 3 ft (1 m) for chassis and containers, or 4 to 6 ft (1.3 to 2 m) for detecting only containers.

8. Lighting

Proper lighting is essential for detecting objects at night. SiteTrax.io recommends LED lighting with a color temperature of 7,000K (bright white) and a brightness of 5,000 lumens. Lights should be mounted approximately 20 ft from the objects being scanned for optimal results.

9. Speed Control

To avoid motion blur and ensure accurate capture, the vehicle speed should be controlled around the Virtual Gate. SiteTrax.io recommends using stop signs or speed bumps to slow vehicles down to 10 mph (16 kph) or less.

10. Exception Handling

In some cases, the system may not be able to identify certain objects, such as when container IDs are damaged or chassis IDs are missing. In such cases, SiteTrax.io will classify these objects as unknown. Customers should establish a process for manually reviewing and classifying these exceptions.

Need Additional Assistance?

These guidelines provide a foundation for the successful deployment of a SiteTrax.io Virtual Gate camera system. However, site-specific variables may affect performance. For further assistance with design, integration, or third-party services, please contact the SiteTrax.io team.

For questions or support, please visit the [SiteTrax.io support page](#).

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