

# Device App Access Devices

## Endpoints Summary

Method	Path	Swagger
GET	<a href="/device_app_access_devices/">/device_app_access_devices/</a>	<a href="#">Swagger ↗</a>

“ The Device App Access Devices API provides endpoints for managing and retrieving access point devices within the GATE system. This endpoint allows you to list and filter access control devices such as door controllers, card readers, and other physical access points used for building security and entry management.

**Base URL:** `https://gate.zequenze.com/api/v1`

**Authentication:** All endpoints require a Bearer token:

```
Authorization: Bearer <your-api-token>
```

## Overview

The Device App Access Devices API is designed for managing physical access control devices within your organization's security infrastructure. This API category focuses on access points - the hardware devices that control entry to buildings, rooms, or secure areas.

### Key Features:

- Retrieve comprehensive lists of all access control devices
- Filter devices by their last modification date
- Access detailed device information including location data, status, and configuration
- Support for pagination to handle large device inventories
- Geographic information for device mapping and location services

### Common Integration Scenarios:

- Building management systems that need to display all access points
- Security dashboards showing device status and locations
- Mobile applications for facility management
- Reporting systems that track device changes and maintenance
- Integration with mapping services using device coordinates

Access devices in the GATE system represent physical hardware like card readers, biometric scanners, door controllers, and gate mechanisms. Each device contains detailed location information, operational status, and organizational assignment data.

# Endpoints

## GET /device\_app\_access\_devices/

**Description:** Retrieves a paginated list of all access control devices in your organization. This endpoint provides comprehensive device information including location data, operational status, and device metadata. Use this endpoint to get an overview of your access control infrastructure or to synchronize device data with external systems.

### Use Cases:

- Display all access points in a security management dashboard
- Synchronize device inventory with external facility management systems
- Generate reports on access control infrastructure
- Build device location maps using latitude/longitude coordinates
- Monitor device status and recent configuration changes

### Full URL Example:

```
https://gate.zequenze.com/api/v1/device_app_access_devices/?limit=50&offset=0&last_change__gte=2024-01-01T00:00:00Z
```

### Parameters:

Parameter	Type	In	Required	Description
last_change__gte	string	query	No	Filter devices modified on or after this date (ISO 8601 format). Useful for incremental sync operations

Parameter	Type	In	Required	Description
limit	integer	query	No	Number of results to return per page (default: system defined, recommended: 50-100)
offset	integer	query	No	The initial index from which to return results (used for pagination)

### cURL Example:

```
curl -X GET "https://gate.zequenze.com/api/v1/device_app_access_devices/?limit=25&offset=0" \
-H "Authorization: Bearer YOUR_API_TOKEN" \
-H "Content-Type: application/json"
```

### Example Response:

```
{
  "count": 156,
  "next": "https://gate.zequenze.com/api/v1/device_app_access_devices/?limit=25&offset=25",
  "previous": null,
  "results": [
    {
      "id": 1001,
      "name": "Main Entrance Card Reader",
      "short_name": "main-entrance-reader",
      "is_active": true,
      "description": "Primary access control device for building main entrance",
      "organization_id": "org-12345",
      "thumbnail": "https://gate.zequenze.com/media/devices/main-entrance-thumb.jpg",
      "address": "123 Corporate Blvd",
      "reference": "Building A - Main Entry",
      "city": "San Francisco",
      "postal_code": "94105",
      "state": "California",
      "region": "Northern California",
      "country_code": "US",
      "latitude": "37.7749",
      "longitude": "-122.4194",
    }
  ]
}
```

```
"created": "2024-01-15T10:30:00Z",
"last_change": "2024-02-10T14:22:33Z"
},
{
  "id": 1002,
  "name": "Executive Floor Biometric Scanner",
  "short_name": "exec-floor-biometric",
  "is_active": true,
  "description": "High-security biometric access control for executive level",
  "organization_id": "org-12345",
  "thumbnail": "https://gate.zequenze.com/media/devices/biometric-scanner-thumb.jpg",
  "address": "123 Corporate Blvd",
  "reference": "Building A - Floor 15",
  "city": "San Francisco",
  "postal_code": "94105",
  "state": "California",
  "region": "Northern California",
  "country_code": "US",
  "latitude": "37.7749",
  "longitude": "-122.4194",
  "created": "2024-01-20T09:15:00Z",
  "last_change": "2024-02-08T11:45:22Z"
}
]
}
```

### Response Codes:

Status	Description
200	Success - Returns paginated list of access devices
401	Unauthorized - Invalid or missing Bearer token
403	Forbidden - Token valid but lacks permission to access devices
500	Internal Server Error - Contact support if persistent

## Common Use Cases

# Use Case 1: Building Security Dashboard

Create a real-time dashboard showing all access control devices in your facilities. Use the base endpoint to retrieve all devices and display their status, locations, and recent activity. Filter by `last_change__gte` to highlight recently modified devices that may need attention.

# Use Case 2: Device Inventory Synchronization

Synchronize your access control device inventory with external facility management or maintenance systems. Use pagination with consistent `limit` values and track the `last_change` timestamps to perform incremental updates rather than full synchronization.

# Use Case 3: Interactive Facility Maps

Build interactive maps of your facilities showing access point locations. Use the `latitude` and `longitude` fields to plot device positions, with `thumbnail` images and `description` text for device details in map popups.

# Use Case 4: Maintenance and Compliance Reporting

Generate reports on access control infrastructure for compliance audits or maintenance scheduling. Filter devices by location (`city`, `state`, `country_code`) or use `last_change__gte` to identify devices that haven't been updated recently and may need inspection.

# Use Case 5: Mobile Facility Management App

Develop mobile applications for security personnel or facility managers. Use the API to show nearby access devices based on geographic coordinates, display device status, and provide quick access to device information and controls.

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## Best Practices

- **Implement Pagination:** Always use `limit` and `offset` parameters when dealing with large device inventories. A limit of 50-100 devices per request provides good performance without overwhelming your application.
- **Use Incremental Updates:** Leverage the `last_change__gte` parameter to fetch only recently modified devices, reducing bandwidth and processing time for synchronization operations.

- **Cache Device Data:** Device information typically doesn't change frequently. Implement appropriate caching strategies with cache invalidation based on `last_change` timestamps.
  - **Handle Geographic Data:** When using `latitude` and `longitude` coordinates, validate that both values are present before attempting to plot devices on maps, as some devices may not have location data.
  - **Monitor Active Status:** Always check the `is_active` field when displaying devices to users. Inactive devices may be offline for maintenance or decommissioned.
  - **Store Organization Context:** The `organization_id` field helps maintain proper data isolation in multi-tenant applications. Always verify device access permissions based on user organization membership.
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