

# Device App Connection Summary

## Endpoints Summary

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

“ The Device App Connection Summary API provides insights into how devices connect to applications within your system. This endpoint delivers aggregated connection data, helping administrators monitor device usage patterns, track application connectivity, and generate reports for network optimization and troubleshooting.

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

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

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

## Overview

The Device App Connection Summary API is designed for system administrators and developers who need to monitor and analyze device-to-application connectivity patterns. This API provides aggregated data about how devices in your network connect to various applications, including connection frequencies, success rates, and usage statistics.

### Key Features:

- **Connection Analytics:** Track how often devices connect to specific applications
- **Performance Monitoring:** Monitor connection success rates and identify problematic connections

- **Usage Patterns:** Understand peak usage times and connection trends
- **Network Optimization:** Identify underutilized or overloaded connections

### Common Integration Scenarios:

- Building administrative dashboards that display device connectivity health
- Creating automated alerts for connection failures or unusual patterns
- Generating reports for network capacity planning and optimization
- Monitoring device fleet performance and application usage

The data returned by this API is typically aggregated over time periods and can be filtered by various parameters to focus on specific devices, applications, or time ranges.

# Endpoints

## GET /device\_app\_connection\_summary/

**Description:** Retrieves a comprehensive summary of device-to-application connections, including connection counts, success rates, and usage statistics. This endpoint provides aggregated data that helps administrators understand connectivity patterns and identify potential issues or optimization opportunities.

### Use Cases:

- Generate daily/weekly/monthly connection reports for management
- Monitor device fleet connectivity health and performance
- Identify devices or applications with connection issues
- Track usage patterns to optimize network resources
- Create automated alerts for connection anomalies

### Full URL Example:

```
https://gate.zequenze.com/api/v1/device_app_connection_summary/?time_period=7d&device_type=mobile&limit=50
```

### Parameters:

Parameter	Type	In	Required	Description
time_period	string	query	No	Time range for summary data (1d, 7d, 30d, 90d). Default: 7d

Parameter	Type	In	Required	Description
device_type	string	query	No	Filter by device type (mobile, desktop, tablet, iot)
app_category	string	query	No	Filter by application category
organization	string	query	No	Filter by organization ID or name
status	string	query	No	Filter by connection status (active, failed, disconnected)
limit	integer	query	No	Number of results to return (max 100). Default: 20
offset	integer	query	No	Number of results to skip for pagination. Default: 0

### cURL Example:

```
curl -X GET
"https://gate.zequenze.com/api/v1/device_app_connection_summary/?time_period=30d&limit=25" \
-H "Authorization: Bearer YOUR_API_TOKEN" \
-H "Content-Type: application/json"
```

### Example Response:

```
{
  "count": 156,
  "next":
  "https://gate.zequenze.com/api/v1/device_app_connection_summary/?limit=25&offset=25",
  "previous": null,
  "summary_period": {
    "start_date": "2024-01-01T00:00:00Z",
    "end_date": "2024-01-31T23:59:59Z",
    "period": "30d"
  },
  "results": [
    {
      "device_id": "dev_12345",
      "device_name": "iPhone-Marketing-001",
      "device_type": "mobile",
```

```
"organization": "Marketing Department",
"app_connections": [
  {
    "app_id": "app_67890",
    "app_name": "Salesforce Mobile",
    "app_category": "CRM",
    "total_connections": 342,
    "successful_connections": 338,
    "failed_connections": 4,
    "success_rate": 98.8,
    "avg_connection_duration": 1847,
    "last_connection": "2024-01-31T14:22:15Z",
    "data_transferred_mb": 125.7
  },
  {
    "app_id": "app_54321",
    "app_name": "Slack",
    "app_category": "Communication",
    "total_connections": 891,
    "successful_connections": 889,
    "failed_connections": 2,
    "success_rate": 99.8,
    "avg_connection_duration": 3600,
    "last_connection": "2024-01-31T16:45:33Z",
    "data_transferred_mb": 89.3
  }
],
"device_summary": {
  "total_connections": 1233,
  "overall_success_rate": 99.4,
  "total_data_transferred_mb": 215.0,
  "most_used_app": "Slack",
  "connection_trend": "stable"
}
},
{
  "device_id": "dev_67891",
  "device_name": "Desktop-IT-005",
  "device_type": "desktop",
  "organization": "IT Department",
```

```
"app_connections": [
  {
    "app_id": "app_11223",
    "app_name": "Azure DevOps",
    "app_category": "Development",
    "total_connections": 156,
    "successful_connections": 154,
    "failed_connections": 2,
    "success_rate": 98.7,
    "avg_connection_duration": 7200,
    "last_connection": "2024-01-31T17:30:00Z",
    "data_transferred_mb": 445.2
  }
],
"device_summary": {
  "total_connections": 156,
  "overall_success_rate": 98.7,
  "total_data_transferred_mb": 445.2,
  "most_used_app": "Azure DevOps",
  "connection_trend": "increasing"
}
],
"aggregate_stats": {
  "total_devices": 156,
  "total_applications": 24,
  "overall_success_rate": 97.6,
  "total_data_transferred_gb": 12.7,
  "top_performing_apps": [
    {
      "app_name": "Slack",
      "success_rate": 99.8
    },
    {
      "app_name": "Office 365",
      "success_rate": 99.2
    }
  ],
  "devices_with_issues": 8
}
```

```
}
```

### Response Codes:

Status	Description
200	Success - Returns connection summary data
400	Bad Request - Invalid parameters (e.g., invalid time_period format)
401	Unauthorized - Invalid or missing Bearer token
403	Forbidden - Insufficient permissions to access connection data
429	Too Many Requests - Rate limit exceeded
500	Internal Server Error - Server error processing the request

## Common Use Cases

### Use Case 1: Daily Connection Health Dashboard

Retrieve connection summaries for the past 24 hours to display on an administrative dashboard, showing which devices and applications are experiencing connection issues and overall network health metrics.

### Use Case 2: Monthly Performance Reports

Generate comprehensive monthly reports showing connection trends, data usage patterns, and device performance metrics for management review and capacity planning.

### Use Case 3: Proactive Issue Detection

Monitor connection success rates and identify devices or applications with declining performance, enabling proactive troubleshooting before users experience significant issues.

### Use Case 4: Usage Pattern Analysis

Analyze connection data across different time periods to understand peak usage times, optimize resource allocation, and plan for infrastructure scaling.

# Use Case 5: Compliance and Audit Reporting

Generate detailed connection logs and usage statistics for compliance audits, security reviews, and organizational policy enforcement.

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## Best Practices

- **Pagination Strategy:** Use reasonable limit values (20-50) for better performance. The API supports up to 100 results per request, but smaller batches often provide better response times.
- **Time Period Selection:** Choose appropriate time periods based on your use case. Use shorter periods (1d, 7d) for real-time monitoring and longer periods (30d, 90d) for trend analysis.
- **Caching Recommendations:** Connection summary data is typically updated every 15 minutes. Implement client-side caching with appropriate TTL to reduce API calls and improve application performance.
- **Error Handling:** Always check the `success_rate` and `failed_connections` fields to identify problematic devices or applications. Implement alerts for success rates below acceptable thresholds (typically < 95%).
- **Rate Limiting:** The API is rate-limited to prevent abuse. Implement exponential backoff for 429 responses and consider batching requests during off-peak hours for large data pulls.
- **Filtering Optimization:** Use specific filters (`device_type`, `organization`, `app_category`) to reduce response payload size and improve query performance when you need targeted data.
- **Data Interpretation:** Pay attention to the `connection_trend` field in device summaries to identify devices that may need attention or optimization, and use `aggregate_stats` for overall system health monitoring.

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