

Organizer Analytics API

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Base URL: `https://api.nexgate.com/api/v1`

Short Description: The Organizer Analytics API provides comprehensive financial and performance insights for event organizers. This API enables organizers to track total collections across all events, analyze revenue by event with filters, monitor individual event performance with detailed metrics, and visualize revenue trends over time with monthly/yearly breakdowns. The system calculates escrow holdings, released payments, ticket sales, attendance rates, and sell-out percentages automatically.

Hints:

- **Organizer Only:** All endpoints restricted to event organizers
- **Auto-Calculations:** Revenue, attendance, sell-out rates computed automatically
- **Escrow Tracking:** Separate tracking for held vs released funds
- **Multi-Event:** Aggregates data across all organizer's events
- **Time Filters:** Filter by status, date range, year
- **Pagination:** Event lists paginated (default 20 per page)
- **Top Performer:** Identifies highest revenue event
- **Trend Analysis:** Monthly/yearly revenue patterns
- **Real-Time:** Updates reflect latest bookings and check-ins

Response Structures

CollectionSummaryResponse

```
{
  "eventMetrics": {
    "totalEvents": 15,
    "upcomingEvents": 5,
    "ongoingEvents": 1,
    "completedEvents": 8,
    "cancelledEvents": 1
  }
}
```

```
{,
  "collectionMetrics": {
    "totalTicketsSold": 2500,
    "totalRevenue": 5000000.00,
    "inEscrow": 1200000.00,
    "released": 3800000.00,
    "refunded": 0.00,
    "pendingRefunds": 0.00
  },
  "topEvent": {
    "eventId": "uuid",
    "eventTitle": "East African Tech Summit 2025",
    "revenue": 1500000.00,
    "ticketsSold": 500,
    "attendanceRate": 92.5
  }
}
```

EventRevenueResponse

```
{
  "events": [
    {
      "eventId": "uuid",
      "eventTitle": "East African Tech Summit 2025",
      "eventDate": "2025-12-15T09:00:00",
      "status": "PUBLISHED",
      "ticketsSold": 500,
      "totalRevenue": 1500000.00,
      "inEscrow": 1500000.00,
      "released": 0.00,
      "refunded": 0.00,
      "attendanceRate": 0.0,
      "totalCapacity": 1000,
      "sellOutPercentage": 50.0
    }
  ],
  "pagination": {
    "currentPage": 0,
```

```
"pageSize": 20,  
"totalPages": 3,  
"totalElements": 45,  
"hasNext": true,  
"hasPrevious": false  
}  
}
```

EventPerformanceResponse

```
{  
  "eventId": "uuid",  
  "eventTitle": "East African Tech Summit 2025",  
  "eventDate": "2025-12-15T09:00:00",  
  "status": "COMPLETED",  
  "financials": {  
    "totalRevenue": 1500000.00,  
    "inEscrow": 0.00,  
    "released": 1500000.00,  
    "refunded": 0.00,  
    "averageTicketPrice": 3000.00  
  },  
  "ticketMetrics": {  
    "totalCapacity": 1000,  
    "totalSold": 500,  
    "totalRemaining": 500,  
    "sellOutPercentage": 50.0  
  },  
  "attendanceMetrics": {  
    "totalTickets": 500,  
    "checkedIn": 462,  
    "noShows": 38,  
    "attendanceRate": 92.4  
  },  
  "timeline": {  
    "createdAt": "2025-10-01T10:00:00",  
    "publishedAt": "2025-10-05T14:30:00",  
    "firstSaleAt": "2025-10-06T09:15:00",  
    "eventDate": "2025-12-15T09:00:00",  
  }  
}
```

```
"completedAt": "2025-12-15T18:00:00"
}
}
```

RevenueTrendResponse

```
{
  "period": "MONTHLY",
  "totalEvents": 12,
  "trends": [
    {
      "label": "JAN",
      "year": 2025,
      "month": 1,
      "eventsCount": 2,
      "ticketsSold": 350,
      "revenue": 875000.00,
      "inEscrow": 0.00,
      "released": 875000.00,
      "averageAttendanceRate": 88.5,
      "averageSellOutRate": 62.0
    }
  ]
}
```

Endpoints

1. Get Collection Summary

Endpoint: **GET** `/analytics/collections/summary`

Access: ☐ Organizer Only

Success Response: Returns CollectionSummaryResponse

Success Response Message: "Collection summary retrieved"

Behavior:

- Aggregates ALL organizer's events
- Calculates escrow (PUBLISHED, HAPPENING events)
- Calculates released (COMPLETED events)
- Identifies top performer by revenue
- Real-time metrics from latest data

Metrics Included:

- Event counts by status
- Total tickets sold
- Total revenue (all time)
- Money in escrow (upcoming/ongoing)
- Money released (completed)
- Refunds (placeholder)
- Top performing event

2. Get Event Revenue

Endpoint: **GET** `/analytics/collections/by-event?status=PUBLISHED&startDate=2025-01-01&endDate=2025-12-31&page=0&size=20`

Access:  Organizer Only

Query Parameters:

Parameter	Type	Required	Description
status	string	No	Filter by event status (PUBLISHED, COMPLETED, etc.)
startDate	date (ISO)	No	Filter events from this date (2025-01-01)
endDate	date (ISO)	No	Filter events until this date (2025-12-31)
page	integer	No	Page number (0-indexed, default: 0)
size	integer	No	Items per page (default: 20)

Success Response: Returns EventRevenueResponse with pagination

Success Response Message: "Event revenue retrieved"

Behavior:

- Lists organizer's events with revenue details
 - Filters by status and date range
 - Sorted by event date (newest first)
 - Paginated results
 - Includes capacity and sell-out metrics
-

3. Get Event Performance

Endpoint: GET `/analytics/performance/{eventId}`

Access: 🔑 Event Organizer Only

Path Parameters:

Parameter	Type	Required	Description
eventId	string (UUID)	Yes	Event identifier

Success Response: Returns EventPerformanceResponse

Success Response Message: "Event performance retrieved"

Behavior:

- Validates organizer owns event
- Calculates comprehensive metrics
- Shows financial breakdown
- Displays ticket sales vs capacity
- Tracks attendance from check-ins
- Provides event timeline

Metrics Sections:

- **Financials:** Revenue, escrow, released, average price
- **Tickets:** Capacity, sold, remaining, sell-out %
- **Attendance:** Total, checked-in, no-shows, rate
- **Timeline:** Key dates from creation to completion

Errors:

- 403 FORBIDDEN: Not event organizer
- 404 NOT_FOUND: Event not found

4. Get Revenue Trends

Endpoint: **GET** `/analytics/trends?period=MONTHLY&year=2025`

Access: ☐ Organizer Only

Query Parameters:

Parameter	Type	Required	Description
period	string	No	MONTHLY or YEARLY (default: MONTHLY)
year	integer	No	Year to analyze (default: current year)

Success Response: Returns RevenueTrendResponse

Success Response Message: "Revenue trends retrieved"

Behavior:

MONTHLY Period:

- Shows all 12 months for specified year
- Data per month: events, tickets, revenue, escrow, released
- Calculates average attendance and sell-out rates

YEARLY Period:

- Shows all years organizer has events
- Data per year: total events, tickets, revenue
- Year-over-year comparison

Each Period Includes:

- Event count
 - Tickets sold
 - Total revenue
 - Money in escrow
 - Money released
 - Average attendance rate
 - Average sell-out rate
-

Key Calculations

Escrow vs Released

In Escrow (Not yet paid to organizer):

- PUBLISHED events (upcoming)
- HAPPENING events (ongoing)
- Formula: Sum of booking totals for non-completed events

Released (Paid to organizer):

- COMPLETED events only
- Formula: Sum of booking totals for completed events

Example:

Event A: PUBLISHED, Revenue: 500,000 TZS → In Escrow
Event B: HAPPENING, Revenue: 300,000 TZS → In Escrow
Event C: COMPLETED, Revenue: 1,200,000 TZS → Released

Total Revenue: 2,000,000 TZS
In Escrow: 800,000 TZS
Released: 1,200,000 TZS

Attendance Rate

$$\text{Attendance Rate} = (\text{Checked-In Tickets} / \text{Total Tickets}) \times 100$$

Example:

- Total tickets: 500
- Checked-in: 462
- Attendance: 92.4%

Sell-Out Percentage

$$\text{Sell-Out \%} = (\text{Tickets Sold} / \text{Total Capacity}) \times 100$$

Example:

- Capacity: 1000
- Sold: 500
- Sell-out: 50%

Average Ticket Price

Average Price = Total Revenue / Total Tickets

Example:

- Revenue: 1,500,000 TZS
- Tickets: 500
- Average: 3,000 TZS

Event Status Flow

DRAFT → PUBLISHED → HAPPENING → COMPLETED

↓

CANCELLED

↓

(Revenue Released)

Financial Impact by Status:

- **DRAFT:** No bookings, no revenue
- **PUBLISHED:** Bookings allowed, revenue in escrow
- **HAPPENING:** Ongoing, revenue still in escrow
- **COMPLETED:** Revenue released to organizer
- **CANCELLED:** Refunds processed (if applicable)

Top Performer Logic

Selection Criteria: Highest total revenue

Metrics Included:

- Event ID and title
- Total revenue (highest wins)
- Tickets sold
- Attendance rate

Use Cases

Dashboard Overview

GET /analytics/collections/summary

Shows:

- Total events across all statuses
- Total revenue (all time)
- Current escrow balance
- Released payments
- Top performing event

Event List with Filters

GET /analytics/collections/by-event?status=COMPLETED&page=0&size=20

Shows:

- All completed events
- Revenue details per event
- Attendance and sell-out rates
- Paginated for easy navigation

Deep Dive on Specific Event

GET /analytics/performance/550e8400-e29b-41d4-a716-446655440000

Shows:

- Complete financial breakdown
- Ticket sales metrics
- Attendance statistics
- Event timeline

Monthly Revenue Analysis

```
GET /analytics/trends?period=MONTHLY&year=2025
```

Shows:

- Revenue per month in 2025
- Event count trends
- Attendance patterns
- Sell-out trends

Year-Over-Year Comparison

```
GET /analytics/trends?period=YEARLY
```

Shows:

- Revenue by year
- Growth trends
- Performance evolution

Best Practices

For Organizers

- ☐ Check collection summary regularly
- ☐ Monitor escrow balance (upcoming payouts)
- ☐ Track attendance rates to improve future events
- ☐ Use trends to identify peak seasons
- ☐ Review individual event performance post-event

For Developers

- ☐ Cache collection summary (refresh hourly)
- ☐ Paginate event lists (default 20 items)
- ☐ Display financial amounts clearly (currency formatting)
- ☐ Show percentage metrics with 1 decimal (92.4%)
- ☐ Provide export functionality for trends

Quick Reference

HTTP Status Codes

- `200 OK`: Successful request
- `401 UNAUTHORIZED`: Authentication required
- `403 FORBIDDEN`: Not event organizer
- `404 NOT_FOUND`: Event not found

Date Formats

- **Event Date**: LocalDateTime (2025-12-15T09:00:00)
- **Query Params**: ISO Date (2025-01-01)

Currency

- All amounts in **TZS** (Tanzanian Shilling)
- Format: 1500000.00 (2 decimals)

Percentage Format

- Format: 92.4 (1 decimal)
- Range: 0.0 - 100.0

Pagination

- Zero-indexed pages (0, 1, 2...)
- Default size: 20
- Max size: 100 (recommended)

Conclusion

The Organizer Analytics API provides comprehensive insights with:

- **Collection Summary**: Total revenue, escrow, and top performers
- **Event Revenue**: Filterable, paginated event list
- **Event Performance**: Deep dive into individual event metrics
- **Revenue Trends**: Monthly/yearly pattern analysis
- **Real-Time**: Auto-calculated from latest bookings

□ **Organizer-Focused:** Restricted to event owners only

Revision #1

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