Installment Plan Management - Admin/Shop Endpoints

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Base URL: `https://api.nextgate.com/api/v1/products/{shopId}/{productId}/installment-plans`

Short Description: This API provides comprehensive endpoints for shop owners and administrators to create, manage, and configure installment plans for their products. Shop owners can define flexible payment terms including payment frequencies, interest rates, down payment requirements, grace periods, and fulfillment options. The API supports full CRUD operations, plan activation/deactivation, featured plan selection, and product-level installment enablement. All endpoints require authentication and validate shop ownership.

Hints:

- All endpoints require authentication and shop ownership validation
- Shop owners can only manage plans for their own products
- Multiple plans can be created per product for different customer segments
- Only one plan per product can be featured at a time
- Plans can be deactivated without deletion to preserve historical data
- Active plans are automatically available to customers on product pages
- Inactive plans are hidden from customers but preserved for existing agreements
- Payment frequencies support daily, weekly, bi-weekly, semi-monthly, monthly, quarterly, and custom intervals
- APR (Annual Percentage Rate) must be between 0% and 36%
- Down payment requirements: 10-50% range
- Grace periods: 0-60 days before first payment
- Fulfillment options: IMMEDIATE (ship after down payment) or AFTER_PAYMENT (ship after completion)
- Display order determines plan sorting on product pages
- Featured plans get "Most Popular" or "Recommended" badge
- Enabling/disabling installments at product level affects all plans

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Standard Response Format

All API responses follow a consistent structure using our Globe Response Builder pattern:

Success Response Structure

```
{
  "success": true,
  "httpStatus": "OK",
  "message": "Operation completed successfully",
  "action_time": "2025-10-18T10:30:45",
  "data": {
    // Actual response data goes here
  }
}
```

Error Response Structure

```
{
  "success": false,
  "httpStatus": "BAD_REQUEST",
  "message": "Error description",
  "action_time": "2025-10-18T10:30:45",
  "data": "Error description"
}
```

Standard Response Fields

Field	Type	Description
`success`	boolean	Always `true` for successful operations, `false` for errors
`httpStatus`	string	HTTP status name (OK, BAD_REQUEST, NOT_FOUND, etc.)
`message`	string	Human-readable message describing the operation result
`action_time`	string	ISO 8601 timestamp of when the response was generated
`data`	object/string	Response payload for success, error details for failures

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HTTP Method Badge Standards

For better visual clarity, all endpoints use colored badges for HTTP methods with the following standard colors:

- **GET** - GET - Green (Safe, read-only operations)
- **POST** - POST - Blue (Create new resources)
- **PUT** - PUT - Yellow (Update/replace entire resource)
- **PATCH** - PATCH - Orange (Partial updates)
- **DELETE** - DELETE - Red (Remove resources)

Endpoints

1. Create Installment Plan

Purpose: Create a new installment plan for a specific product

Endpoint: POST `{base_url}`

Access Level: □□ Protected (Requires Authentication, Shop Owner Only)

Authentication: Bearer Token

Request Headers:

Header	Type	Required	Description
Authorization	string	Yes	Bearer token for authentication

Path Parameters:

Parameter	Type	Required	Description	Validation
shopId	UUID	Yes	Unique identifier of the shop	Valid UUID format, must be owned by authenticated user
productId	UUID	Yes	Unique identifier of the product	Valid UUID format, must belong to specified shop
planId	UUID	Yes	Unique identifier of the plan to deactivate	Valid UUID format, must belong to specified product

Success Response JSON Sample:

```
{
  "success": true,
  "httpStatus": "OK",
  "message": "Installment plan deactivated successfully",
  "action_time": "2025-10-18T10:30:45",
  "data": {
    "planId": "6d7e8f9a-0b1c-4d2e-9f3a-4b5c6d7e8f9a",
    "planName": "Budget Friendly Plan",
    "isActive": false,
    "updatedAt": "2025-10-18T10:30:45"
  }
}
```


Success Response Fields:

Field	Description
planId	ID of the deactivated plan
planName	Name of the plan
isActive	Active status (false)
updatedAt	Update timestamp

Error Response Examples: Same as Activate Installment Plan endpoint

Important Notes:

- Deactivated plans are hidden from customers on product pages
- Existing agreements continue to use deactivated plans
- Plan can be reactivated at any time
- Deactivation is preferred over deletion for plans with existing agreements

---

2. Get Product Installment Plans

Purpose: Retrieve all installment plans for a specific product (including inactive plans for admin view)

Endpoint: `GET` `{base_url}`

Access Level: □□ Protected (Requires Authentication, Shop Owner Only)

Authentication: Bearer Token

Request Headers:

Header	Type	Required	Description
Authorization	string	Yes	Bearer token for authentication

Path Parameters:

Parameter	Type	Required	Description	Validation
shopId	UUID	Yes	Unique identifier of the shop	Valid UUID format, must be owned by authenticated user
productId	UUID	Yes	Unique identifier of the product	Valid UUID format, must belong to specified shop

Success Response JSON Sample:


```
{
  "success": true,
  "httpStatus": "OK",
  "message": "Installment plans retrieved successfully",
  "action_time": "2025-10-18T10:30:45",
  "data": [
    {
      "planId": "4b5c6d7e-8f9a-4b1c-9d2e-3f4a5b6c7d8e",
      "planName": "Quick Payment Plan",
      "paymentFrequency": "WEEKLY",
      "paymentFrequencyDisplay": "Weekly",
      "customFrequencyDays": null,
      "numberOfPayments": 8,
      "calculatedDurationDays": 56,
      "calculatedDurationDisplay": "8 weeks",
      "apr": 10.00,
      "minDownPaymentPercent": 20,
      "gracePeriodDays": 7,
      "fulfillmentTiming": "IMMEDIATE",
      "isActive": true,
      "isFeatured": false,
      "displayOrder": 1,
      "productId": "7c9e6679-7425-40de-944b-e07fc1f90ae7",
      "productName": "Samsung Galaxy S24 Ultra",
```

```
    "shopId": "8d3a7b12-9c4e-4f8a-b5d2-3e6f7a8b9c0d",
    "shopName": "Tech World Store",
    "createdAt": "2025-10-15T09:00:00",
    "updatedAt": "2025-10-15T09:00:00"
  },
  {
    "planId": "5c6d7e8f-9a0b-4c1d-8e2f-3a4b5c6d7e8f",
    "planName": "12 Month Standard Plan",
    "paymentFrequency": "MONTHLY",
    "paymentFrequencyDisplay": "Monthly",
    "customFrequencyDays": null,
    "numberOfPayments": 12,
    "calculatedDurationDays": 360,
    "calculatedDurationDisplay": "12 months",
    "apr": 15.00,
    "minDownPaymentPercent": 20,
    "gracePeriodDays": 30,
    "fulfillmentTiming": "IMMEDIATE",
    "isActive": true,
    "isFeatured": true,
    "displayOrder": 2,
    "productId": "7c9e6679-7425-40de-944b-e07fc1f90ae7",
    "productName": "Samsung Galaxy S24 Ultra",
    "shopId": "8d3a7b12-9c4e-4f8a-b5d2-3e6f7a8b9c0d",
    "shopName": "Tech World Store",
    "createdAt": "2025-10-16T10:30:00",
    "updatedAt": "2025-10-16T10:30:00"
  },
  {
    "planId": "6d7e8f9a-0b1c-4d2e-9f3a-4b5c6d7e8f9a",
    "planName": "Budget Friendly Plan",
    "paymentFrequency": "MONTHLY",
    "paymentFrequencyDisplay": "Monthly",
    "customFrequencyDays": null,
    "numberOfPayments": 24,
    "calculatedDurationDays": 720,
    "calculatedDurationDisplay": "24 months",
    "apr": 18.00,
    "minDownPaymentPercent": 10,
    "gracePeriodDays": 30,
```

```
      "fulfillmentTiming": "AFTER_PAYMENT",
      "isActive": false,
      "isFeatured": false,
      "displayOrder": 3,
      "productId": "7c9e6679-7425-40de-944b-e07fc1f90ae7",
      "productName": "Samsung Galaxy S24 Ultra",
      "shopId": "8d3a7b12-9c4e-4f8a-b5d2-3e6f7a8b9c0d",
      "shopName": "Tech World Store",
      "createdAt": "2025-10-17T14:00:00",
      "updatedAt": "2025-10-18T08:00:00"
    }
  ]
}
```


Success Response Fields: Same as Create Installment Plan endpoint, returned as array

Error Response Examples:

Forbidden (403):


```
{
  "success": false,
  "httpStatus": "FORBIDDEN",
  "message": "You do not have permission to view this shop's products",
  "action_time": "2025-10-18T10:30:45",
  "data": "You do not have permission to view this shop's products"
}
```


Not Found (404):


```
{
  "success": false,
  "httpStatus": "NOT_FOUND",
  "message": "Product not found",
  "action_time": "2025-10-18T10:30:45",
  "data": "Product not found"
}
```


---

3. Get Installment Plan By ID

Purpose: Retrieve detailed information about a specific installment plan

Endpoint: `GET` `{base_url}/{planId}`

Access Level: □□ Protected (Requires Authentication, Shop Owner Only)

Authentication: Bearer Token

Request Headers:

Header	Type	Required	Description
Authorization	string	Yes	Bearer token for authentication

Path Parameters:

Parameter	Type	Required	Description	Validation
shopId	UUID	Yes	Unique identifier of the shop	Valid UUID format, must be owned by authenticated user
productId	UUID	Yes	Unique identifier of the product	Valid UUID format, must belong to specified shop
planId	UUID	Yes	Unique identifier of the plan	Valid UUID format, must belong to specified product

Success Response JSON Sample:


```
{
  "success": true,
  "httpStatus": "OK",
  "message": "Installment plan retrieved successfully",
  "action_time": "2025-10-18T10:30:45",
  "data": {
    "planId": "5c6d7e8f-9a0b-4c1d-8e2f-3a4b5c6d7e8f",
    "planName": "12 Month Standard Plan",
    "paymentFrequency": "MONTHLY",
    "paymentFrequencyDisplay": "Monthly",
    "customFrequencyDays": null,
    "numberOfPayments": 12,
    "calculatedDurationDays": 360,
    "calculatedDurationDisplay": "12 months",
    "apr": 15.00,
```

```
    "minDownPaymentPercent": 20,
    "gracePeriodDays": 30,
    "fulfillmentTiming": "IMMEDIATE",
    "isActive": true,
    "isFeatured": true,
    "displayOrder": 2,
    "productId": "7c9e6679-7425-40de-944b-e07fc1f90ae7",
    "productName": "Samsung Galaxy S24 Ultra",
    "shopId": "8d3a7b12-9c4e-4f8a-b5d2-3e6f7a8b9c0d",
    "shopName": "Tech World Store",
    "createdAt": "2025-10-16T10:30:00",
    "updatedAt": "2025-10-16T10:30:00",
    "metadata": {}
  }
}
```


Success Response Fields: Same as Create Installment Plan endpoint

Error Response Examples: Same as Get Product Installment Plans endpoint, plus:

Not Found - Plan (404):


```
{
  "success": false,
  "httpStatus": "NOT_FOUND",
  "message": "Installment plan not found",
  "action_time": "2025-10-18T10:30:45",
  "data": "Installment plan not found"
}
```


---

4. Update Installment Plan

Purpose: Update an existing installment plan's configuration

Endpoint: **PUT** `{base_url}/{planId}`

Access Level: □□ Protected (Requires Authentication, Shop Owner Only)

Authentication: Bearer Token

Request Headers:

Header	Type	Required	Description
Authorization	string	Yes	Bearer token for authentication
Content-Type	string	Yes	application/json

Path Parameters:

Parameter	Type	Required	Description	Validation
shopId	UUID	Yes	Unique identifier of the shop	Valid UUID format, must be owned by authenticated user
productId	UUID	Yes	Unique identifier of the product	Valid UUID format, must belong to specified shop
planId	UUID	Yes	Unique identifier of the plan to update	Valid UUID format, must belong to specified product

Request JSON Sample:

```
{
  "planName": "12 Month Premium Plan",
  "paymentFrequency": "MONTHLY",
  "customFrequencyDays": null,
  "numberOfPayments": 12,
  "apr": 12.00,
  "minDownPaymentPercent": 25,
  "gracePeriodDays": 45,
  "fulfillmentTiming": "IMMEDIATE",
  "displayOrder": 1
}
```

Request Body Parameters:

Parameter	Type	Required	Description	Validation
planName	string	No	Updated display name	Min: 3, Max: 100 characters
paymentFrequency	string	No	Updated payment frequency	enum: DAILY, WEEKLY, BI_WEEKLY, SEMI_MONTHLY, MONTHLY, QUARTERLY, CUSTOM_DAYS

Parameter	Type	Required	Description	Validation
customFrequencyDays	integer	Conditional	Updated custom frequency	Required if paymentFrequency is CUSTOM_DAYS, Min: 1, Max: 365
numberOfPayments	integer	No	Updated number of payments	Min: 2, Max: 120
apr	decimal	No	Updated APR	Min: 0.00, Max: 36.00
minDownPaymentPercent	integer	No	Updated minimum down payment	Min: 10, Max: 50
gracePeriodDays	integer	No	Updated grace period	Min: 0, Max: 60
fulfillmentTiming	string	No	Updated fulfillment option	enum: IMMEDIATE, AFTER_PAYMENT
displayOrder	integer	No	Updated display order	Min: 0

Success Response JSON Sample:


```
{
  "success": true,
  "httpStatus": "OK",
  "message": "Installment plan updated successfully",
  "action_time": "2025-10-18T10:30:45",
  "data": {
    "planId": "5c6d7e8f-9a0b-4c1d-8e2f-3a4b5c6d7e8f",
    "planName": "12 Month Premium Plan",
    "paymentFrequency": "MONTHLY",
    "paymentFrequencyDisplay": "Monthly",
    "customFrequencyDays": null,
    "numberOfPayments": 12,
    "calculatedDurationDays": 360,
    "calculatedDurationDisplay": "12 months",
    "apr": 12.00,
    "minDownPaymentPercent": 25,
    "gracePeriodDays": 45,
    "fulfillmentTiming": "IMMEDIATE",
    "isActive": true,
    "isFeatured": true,
    "displayOrder": 1,
    "productId": "7c9e6679-7425-40de-944b-e07fc1f90ae7",
    "productName": "Samsung Galaxy S24 Ultra",
```

```
    "shopId": "8d3a7b12-9c4e-4f8a-b5d2-3e6f7a8b9c0d",
    "shopName": "Tech World Store",
    "createdAt": "2025-10-16T10:30:00",
    "updatedAt": "2025-10-18T10:30:45"
  }
}
```

Success Response Fields: Same as Create Installment Plan endpoint

Error Response Examples: Same as Create Installment Plan endpoint

Important Notes:

- Updating a plan only affects new agreements created after the update
- Existing agreements continue using the original terms
- Cannot update isActive or isFeatured via this endpoint (use dedicated endpoints)

---

5. Delete Installment Plan

Purpose: Permanently delete an installment plan (only if no active agreements exist)

Endpoint: DELETE `{base_url}/{planId}`

Access Level: □□ Protected (Requires Authentication, Shop Owner Only)

Authentication: Bearer Token

Request Headers:

Header	Type	Required	Description
Authorization	string	Yes	Bearer token for authentication

Path Parameters:

Parameter	Type	Required	Description	Validation
shopId	UUID	Yes	Unique identifier of the shop	Valid UUID format, must be owned by authenticated user
productId	UUID	Yes	Unique identifier of the product	Valid UUID format, must belong to specified shop

Parameter	Type	Required	Description	Validation
planId	UUID	Yes	Unique identifier of the plan to delete	Valid UUID format, must belong to specified product

Success Response JSON Sample:

```
{
  "success": true,
  "httpStatus": "OK",
  "message": "Installment plan deleted successfully",
  "action_time": "2025-10-18T10:30:45",
  "data": null
}
```

Success Response Fields: No data returned on successful deletion

Error Response Examples:

Bad Request - Has Active Agreements (400):

```
{
  "success": false,
  "httpStatus": "BAD_REQUEST",
  "message": "Cannot delete plan with active agreements. Deactivate the plan instead.",
  "action_time": "2025-10-18T10:30:45",
  "data": "Cannot delete plan with active agreements. Deactivate the plan instead."
}
```

Forbidden (403):

```
{
  "success": false,
  "httpStatus": "FORBIDDEN",
  "message": "You do not have permission to delete this plan",
  "action_time": "2025-10-18T10:30:45",
  "data": "You do not have permission to delete this plan"
}
```

Not Found (404):

```
{
  "success": false,
  "httpStatus": "NOT_FOUND",
  "message": "Installment plan not found",
  "action_time": "2025-10-18T10:30:45",
  "data": "Installment plan not found"
}
```


---

6. Activate Installment Plan

Purpose: Activate an installment plan to make it available to customers

Endpoint: PATCH `{base_url}/{planId}/activate`

Access Level: □□ Protected (Requires Authentication, Shop Owner Only)

Authentication: Bearer Token

Request Headers:

Header	Type	Required	Description
Authorization	string	Yes	Bearer token for authentication

Path Parameters:

Parameter	Type	Required	Description	Validation
shopId	UUID	Yes	Unique identifier of the shop	Valid UUID format, must be owned by authenticated user
productId	UUID	Yes	Unique identifier of the product	Valid UUID format, must belong to specified shop
planId	UUID	Yes	Unique identifier of the plan to activate	Valid UUID format, must belong to specified product

Success Response JSON Sample:


```
{
  "success": true,
```

```
  "httpStatus": "OK",
  "message": "Installment plan activated successfully",
  "action_time": "2025-10-18T10:30:45",
  "data": {
    "planId": "6d7e8f9a-0b1c-4d2e-9f3a-4b5c6d7e8f9a",
    "planName": "Budget Friendly Plan",
    "isActive": true,
    "updatedAt": "2025-10-18T10:30:45"
  }
}
```


Success Response Fields:

Field	Description
planId	ID of the activated plan
planName	Name of the plan
isActive	Active status (true)
updatedAt	Update timestamp

Error Response Examples: Same as Delete Installment Plan endpoint

---

7. Deactivate Installment Plan

Purpose: Deactivate an installment plan to hide it from customers (preserves data for existing agreements)

Endpoint: PATCH `{base_url}/{planId}/deactivate`

Access Level: □□ Protected (Requires Authentication, Shop Owner Only)

Authentication: Bearer Token

Request Headers:

Header	Type	Required	Description
Authorization	string	Yes	Bearer token

8. Set Featured Plan

Purpose: Mark a plan as featured (recommended/most popular) - only one plan per product can be featured

Endpoint: PATCH `{base_url}/{planId}/set-featured`

Access Level: □□ Protected (Requires Authentication, Shop Owner Only)

Authentication: Bearer Token

Request Headers:

Header	Type	Required	Description
Authorization	string	Yes	Bearer token for authentication

Path Parameters:

Parameter	Type	Required	Description	Validation
shopId	UUID	Yes	Unique identifier of the shop	Valid UUID format, must be owned by authenticated user
productId	UUID	Yes	Unique identifier of the product	Valid UUID format, must belong to specified shop
planId	UUID	Yes	Unique identifier of the plan to feature	Valid UUID format, must belong to specified product

Success Response JSON Sample:


```
{
  "success": true,
  "httpStatus": "OK",
  "message": "Featured plan set successfully",
  "action_time": "2025-10-18T10:30:45",
  "data": {
    "planId": "5c6d7e8f-9a0b-4c1d-8e2f-3a4b5c6d7e8f",
    "planName": "12 Month Premium Plan",
    "isFeatured": true,
    "previousFeaturedPlanId": "4b5c6d7e-8f9a-4b1c-9d2e-3f4a5b6c7d8e",
    "updatedAt": "2025-10-18T10:30:45"
  }
}
```

Success Response Fields:

Field	Description
planId	ID of the newly featured plan
planName	Name of the plan
isFeatured	Featured status (true)
previousFeaturedPlanId	ID of previously featured plan (null if none)
updatedAt	Update timestamp

Error Response Examples: Same as Activate Installment Plan endpoint

Important Notes:

- Setting a plan as featured automatically un-features any previously featured plan
- Only active plans should be featured
- Featured plans typically display "Most Popular" or "Recommended" badge
- Featured plans often appear first in plan listings

---

9. Enable Installments for Product

Purpose: Enable installment payment option for a product (makes all active plans available)

Endpoint: `PATCH` `{base_url}/enable-installments`

Access Level: □□ Protected (Requires Authentication, Shop Owner Only)

Authentication: Bearer Token

Request Headers:

Header	Type	Required	Description
Authorization	string	Yes	Bearer token for authentication

Path Parameters:

Parameter	Type	Required	Description	Validation
shopId	UUID	Yes	Unique identifier of the shop	Valid UUID format, must be owned by authenticated user

Parameter	Type	Required	Description	Validation
productId	UUID	Yes	Unique identifier of the product	Valid UUID format, must belong to specified shop

Success Response JSON Sample:

```
{
  "success": true,
  "httpStatus": "OK",
  "message": "Installments enabled successfully for product",
  "action_time": "2025-10-18T10:30:45",
  "data": {
    "productId": "7c9e6679-7425-40de-944b-e07fc1f90ae7",
    "productName": "Samsung Galaxy S24 Ultra",
    "installmentAvailable": true,
    "activePlansCount": 2,
    "updatedAt": "2025-10-18T10:30:45"
  }
}
```

Success Response Fields:

Field	Description
productId	ID of the product
productName	Name of the product
installmentAvailable	Installment availability status (true)
activePlansCount	Number of active plans for this product
updatedAt	Update timestamp

Error Response Examples:

Bad Request - No Plans (400):

```
{
  "success": false,
  "httpStatus": "BAD_REQUEST",
  "message": "Cannot enable installments: No installment plans created for this product",
  "action_time": "2025-10-18T10:30:45",
  "data": "Cannot enable installments: No installment plans created for this product"
```

```
}
```

Forbidden (403):

```
{
  "success": false,
  "httpStatus": "FORBIDDEN",
  "message": "You do not have permission to modify this product",
  "action_time": "2025-10-18T10:30:45",
  "data": "You do not have permission to modify this product"
}
```

Not Found (404):

```
{
  "success": false,
  "httpStatus": "NOT_FOUND",
  "message": "Product not found",
  "action_time": "2025-10-18T10:30:45",
  "data": "Product not found"
}
```

---

10. Disable Installments for Product

Purpose: Disable installment payment option for a product (hides all plans from customers)

Endpoint: `PATCH` `{base_url}/disable-installments`

Access Level: □□ Protected (Requires Authentication, Shop Owner Only)

Authentication: Bearer Token

Request Headers:

Header	Type	Required	Description
Authorization	string	Yes	Bearer token for authentication

Path Parameters:

Parameter	Type	Required	Description	Validation

shopId	UUID	Yes	Unique identifier of the shop	Valid UUID format, must be owned by authenticated user
productId	UUID	Yes	Unique identifier of the product	Valid UUID format, must belong to specified shop

Success Response JSON Sample:

```
{
  "success": true,
  "httpStatus": "OK",
  "message": "Installments disabled successfully for product",
  "action_time": "2025-10-18T10:30:45",
  "data": {
    "productId": "7c9e6679-7425-40de-944b-e07fc1f90ae7",
    "productName": "Samsung Galaxy S24 Ultra",
    "installmentAvailable": false,
    "activePlansCount": 2,
    "updatedAt": "2025-10-18T10:30:45"
  }
}
```

Success Response Fields: Same as Enable Installments endpoint

Error Response Examples: Same as Enable Installments endpoint

Important Notes:

- Disabling installments hides the option from product page
- Existing agreements continue to function normally
- Plans are preserved and can be reactivated
- Customers with active agreements can still make payments

Common HTTP Status Codes

- `200 OK`: Successful request
- `400 Bad Request`: Invalid request data or business logic violation
- `401 Unauthorized`: Authentication required/failed
- `403 Forbidden`: Insufficient permissions or not shop owner
- `404 Not Found`: Resource not found
- `422 Unprocessable Entity`: Validation errors

- `500 Internal Server Error`: Server error

Payment Frequency Options

- **DAILY**: Payment every day (1 day)
- **WEEKLY**: Payment every week (7 days)
- **BI_WEEKLY**: Payment every 2 weeks (14 days)
- **SEMI_MONTHLY**: Payment twice per month (~15 days)
- **MONTHLY**: Payment every month (~30 days)
- **QUARTERLY**: Payment every 3 months (~90 days)
- **CUSTOM_DAYS**: Custom interval (1-365 days)

Fulfillment Timing Options

- **IMMEDIATE**: Product ships after down payment, customer receives product while paying installments
- **AFTER_PAYMENT**: Product ships after final payment (layaway model), inventory held during payment period

Plan Configuration Constraints

Parameter	Minimum	Maximum	Notes
APR	0%	36%	Platform-enforced limit
Down Payment	10%	50%	Minimum by plan, maximum platform-wide
Number of Payments	2	120	Typical range: 4-24 payments
Grace Period	0 days	60 days	Days before first payment
Custom Frequency	1 day	365 days	Only for CUSTOM_DAYS type
Plan Name	3 chars	100 chars	Must be unique per product

Plan States and Lifecycle

Active Plan

- Visible to customers on product page
- Can be selected during checkout
- Creates new agreements
- Appears in public API responses

Inactive Plan

- Hidden from customers
- Cannot be selected for new purchases
- Existing agreements continue
- Visible only to shop owner

Featured Plan

- Displays "Most Popular" or "Recommended" badge
- Only one plan per product can be featured
- Typically listed first in plan options
- Used for promoting preferred payment terms

Deleted Plan

- Permanently removed from system
- Only possible if no agreements exist
- Cannot be recovered
- Use deactivation instead for preservation

Business Rules Summary

1. **One Featured Plan**: Only one plan per product can be featured at a time
2. **Shop Ownership**: Only shop owners can manage their product plans
3. **Active Plans Only**: Customers only see active plans for products with installments enabled
4. **No Deletion with Agreements**: Plans with existing agreements cannot be deleted, only deactivated
5. **Update Impact**: Plan updates only affect new agreements, not existing ones
6. **Product-Level Control**: Disabling installments at product level hides all plans
7. **Duration Calculation**: System automatically calculates duration based on frequency and payment count
8. **Validation**: All parameters validated against platform constraints
9. **Plan Minimum**: At least one active plan required to enable installments on product
10. **Historical Preservation**: Deactivated plans preserved for agreement history

Common Workflows

Creating a New Installment Plan

1. Ensure product exists and you own the shop
2. POST /installment-plans with plan configuration
3. Verify plan appears in GET /installment-plans
4. Optionally set as featured via PATCH /set-featured

5. Enable installments on product if not already enabled

Managing Multiple Plans

1. Create multiple plans for different customer segments
   - Quick payment plan (8 weeks, 10% APR)
   - Standard plan (12 months, 15% APR)
   - Budget plan (24 months, 18% APR)
2. Set most balanced plan as featured
3. Order by display priority (displayOrder field)
4. Monitor customer preferences and adjust

Temporarily Disabling Plans

1. PATCH /deactivate for specific plan
2. OR PATCH /disable-installments for all plans
3. Existing agreements continue normally
4. Reactivate when ready with PATCH /activate or /enable-installments

Updating Plan Terms

1. Analyze current agreement performance
2. PUT /installment-plans/{planId} with new terms
3. New terms apply only to future agreements
4. Consider creating new plan for major changes

Deleting Unused Plans

1. Check if plan has any agreements (attempt delete will fail if so)
2. DELETE /installment-plans/{planId}
3. Plan permanently removed
4. If has agreements, use deactivate instead

Client-Side Validation

- Validate shop/product ownership before API call
- Check APR within 0-36% range
- Verify down payment within 10-50% range
- Validate payment count between 2-120
- Ensure customFrequencyDays present for CUSTOM_DAYS
- Check plan name length (3-100 characters)

Server-Side Error Handling

- 400: Display user-friendly message, allow retry
- 403: Show "Insufficient permissions" message
- 404: Redirect to product list or show error

- 422: Display field-specific validation errors
- 500: Generic error message, log for investigation

Testing Scenarios

Happy Path

1. Create plan with valid parameters
2. Retrieve plan and verify all fields
3. Update plan configuration
4. Set as featured plan
5. Activate/deactivate plan
6. Enable/disable product installments

Edge Cases

1. Create multiple plans with same parameters
2. Set featured when no featured plan exists
3. Set featured when another plan is featured
4. Update plan to use custom frequency
5. Deactivate only active plan
6. Enable installments with no active plans

Error Cases

1. Invalid shop/product IDs → 404
2. Non-owner attempting management → 403
3. APR outside 0-36% range → 422
4. Down payment outside 10-50% → 422
5. Delete plan with agreements → 400
6. Missing required fields → 422
7. Invalid payment frequency → 422
8. Custom days without CUSTOM_DAYS → 422

Performance Considerations

- Cache plan data at product level (TTL: 30 minutes)
- Invalidate cache on plan create/update/delete
- Batch operations when managing multiple plans
- Use pagination for products with many plans
- Index on productId for fast retrieval

Security Considerations

- Always validate shop ownership
- Verify product belongs to shop
- Rate limiting: 100 requests/hour per user
- Input validation on all parameters
- SQL injection prevention (parameterized queries)
- XSS prevention (sanitize all inputs)
- Audit log all plan changes

Monitoring and Analytics

Track the following metrics:

- Plans created per shop
- Plan activation/deactivation frequency
- Featured plan changes
- Plans by payment frequency
- Average APR across plans
- Popular plan configurations
- Plans with most agreements

Best Practices for Shop Owners

Plan Design Strategy

1. **Offer 2-3 plans** for different budgets
   - Quick plan: Short term, low interest
   - Standard plan: Medium term, moderate interest
   - Budget plan: Long term, higher interest
2. **Use clear naming**: "8-Week Quick Pay", "12-Month Standard"
3. **Set appropriate featured plan**: Balance of affordability and profit
4. **Adjust based on data**: Monitor which plans customers choose

APR Configuration

- **Premium products**: Lower APR (8-12%)
- **Standard products**: Moderate APR (12-18%)
- **High-risk categories**: Higher APR (18-24%)
- **Promotional periods**: Reduced APR (0-10%)

Down Payment Strategy

- **High-value items**: Higher down payment (25-40%)
- **Impulse purchases**: Lower down payment (10-20%)
- **Luxury items**: Flexible range (15-50%)
- **Clearance items**: Fixed minimum (10-15%)

Grace Period Guidelines

- **Weekly payments**: 7-14 days grace
- **Monthly payments**: 30-45 days grace
- **Seasonal products**: Align with customer cash flow
- **New customers**: Shorter grace (7-15 days)

Common Mistakes to Avoid

1. Too many plans (confuses customers) - stick to 2-4
2. Too high APR (customers avoid) - keep competitive
3. Too low down payment (higher default risk) - minimum 15-20%
4. Deleting active plans - deactivate instead
5. Not setting featured plan - customers want guidance
6. Inconsistent plan naming - use clear conventions
7. Not updating based on performance - review quarterly
8. Enabling without active plans - create plans first

Support & Resources

- **API Documentation**: https://docs.nextgate.com/api/installment-plans
- **Shop Owner Guide**: https://help.nextgate.com/shop/installments
- **Developer Portal**: https://developers.nextgate.com
- **Support Email**: shop-support@nextgate.com
- **Status Page**: https://status.nextgate.com
- **Video Tutorials**: https://academy.nextgate.com/installments

Version 1.0 (2025-10-18)

- Initial release
- Full CRUD operations for installment plans
- Plan activation/deactivation
- Featured plan management
- Product-level installment control
- Shop ownership validation
- Comprehensive error handling
- Audit logging support for authentication | | Content-Type | string | Yes | application/json |

Path Parameters:

Parameter	Type	Required	Description	Validation
shopId	UUID	Yes	Unique identifier of the shop	Valid UUID format, must be owned by authenticated user

Parameter	Type	Required	Description	Validation
productId	UUID	Yes	Unique identifier of the product	Valid UUID format, must belong to specified shop

Request JSON Sample:

```
{
  "planName": "12 Month Standard Plan",
  "paymentFrequency": "MONTHLY",
  "customFrequencyDays": null,
  "numberOfPayments": 12,
  "apr": 15.00,
  "minDownPaymentPercent": 20,
  "gracePeriodDays": 30,
  "fulfillmentTiming": "IMMEDIATE",
  "isActive": true,
  "isFeatured": false,
  "displayOrder": 1
}
```

Request Body Parameters:

Parameter	Type	Required	Description	Validation
planName	string	Yes	Display name for the plan	Min: 3, Max: 100 characters
paymentFrequency	string	Yes	Payment frequency type	enum: DAILY, WEEKLY, BI_WEEKLY, SEMI_MONTHLY, MONTHLY, QUARTERLY, CUSTOM_DAYS
customFrequencyDays	integer	Conditional	Custom frequency in days	Required if paymentFrequency is CUSTOM_DAYS, Min: 1, Max: 365
numberOfPayments	integer	Yes	Total number of payments	Min: 2, Max: 120
apr	decimal	Yes	Annual Percentage Rate	Min: 0.00, Max: 36.00
minDownPaymentPercent	integer	Yes	Minimum down payment percentage	Min: 10, Max: 50

Parameter	Type	Required	Description	Validation
gracePeriodDays	integer	Yes	Days before first payment due	Min: 0, Max: 60
fulfillmentTiming	string	Yes	When to ship product	enum: IMMEDIATE, AFTER_PAYMENT
isActive	boolean	No	Whether plan is active	Default: true
isFeatured	boolean	No	Whether plan is featured	Default: false
displayOrder	integer	No	Display order on product page	Min: 0, Default: 0

Success Response JSON Sample:


```
{
  "success": true,
  "httpStatus": "OK",
  "message": "Installment plan created successfully",
  "action_time": "2025-10-18T10:30:45",
  "data": {
    "planId": "5c6d7e8f-9a0b-4c1d-8e2f-3a4b5c6d7e8f",
    "planName": "12 Month Standard Plan",
    "paymentFrequency": "MONTHLY",
    "paymentFrequencyDisplay": "Monthly",
    "customFrequencyDays": null,
    "numberOfPayments": 12,
    "calculatedDurationDays": 360,
    "calculatedDurationDisplay": "12 months",
    "apr": 15.00,
    "minDownPaymentPercent": 20,
    "gracePeriodDays": 30,
    "fulfillmentTiming": "IMMEDIATE",
    "isActive": true,
    "isFeatured": false,
    "displayOrder": 1,
    "productId": "7c9e6679-7425-40de-944b-e07fc1f90ae7",
    "productName": "Samsung Galaxy S24 Ultra",
    "shopId": "8d3a7b12-9c4e-4f8a-b5d2-3e6f7a8b9c0d",
    "shopName": "Tech World Store",
    "createdAt": "2025-10-18T10:30:45",
    "updatedAt": "2025-10-18T10:30:45"
```

```
  }
}
```

Success Response Fields:

Field	Description
planId	Unique identifier for the created plan
planName	Name of the plan
paymentFrequency	Payment frequency enum value
paymentFrequencyDisplay	Human-readable frequency
customFrequencyDays	Custom days (if CUSTOM_DAYS type)
numberOfPayments	Total number of payments
calculatedDurationDays	Auto-calculated total duration in days
calculatedDurationDisplay	Human-readable duration
apr	Annual Percentage Rate
minDownPaymentPercent	Minimum down payment percentage
gracePeriodDays	Grace period in days
fulfillmentTiming	Fulfillment option
isActive	Active status
isFeatured	Featured status
displayOrder	Display order
productId	Associated product ID
productName	Associated product name
shopId	Associated shop ID
shopName	Associated shop name
createdAt	Creation timestamp
updatedAt	Last update timestamp

Error Response Examples:

Bad Request - Invalid APR (400):

```
{
  "success": false,
  "httpStatus": "BAD_REQUEST",
  "message": "APR must be between 0% and 36%",
```

```
  "action_time": "2025-10-18T10:30:45",
  "data": "APR must be between 0% and 36%"
}
```


Bad Request - Invalid Payment Count (400):


```
{
  "success": false,
  "httpStatus": "BAD_REQUEST",
  "message": "Number of payments must be between 2 and 120",
  "action_time": "2025-10-18T10:30:45",
  "data": "Number of payments must be between 2 and 120"
}
```


Validation Error (422):


```
{
  "success": false,
  "httpStatus": "UNPROCESSABLE_ENTITY",
  "message": "Validation failed",
  "action_time": "2025-10-18T10:30:45",
  "data": {
    "planName": "Plan name is required",
    "apr": "must be between 0 and 36",
    "minDownPaymentPercent": "must be between 10 and 50"
  }
}
```


Forbidden - Not Shop Owner (403):


```
{
  "success": false,
  "httpStatus": "FORBIDDEN",
  "message": "You do not have permission to manage this shop's products",
  "action_time": "2025-10-18T10:30:45",
  "data": "You do not have permission to manage this shop's products"
}
```


Not Found - Product (404):

```
{
  "success": false,
  "httpStatus": "NOT_FOUND",
  "message": "Product not found",
  "action_time": "2025-10-18T10:30:45",
  "data": "Product not found"
}
```

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