

MigrateNexus

Data Dictionary & Integration Reference

For Service Providers

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1. Overview

This document is the reference guide for service providers integrating with MigrateNexus. It covers the unified schema, along with authentication, how to retrieve data, and what to expect at each stage of a migration.

MigrateNexus retrieves employee data from a client's source system, normalizes it to the unified schema described in this document, and makes it available for the service provider to fetch and import. The service provider integrates once with MigrateNexus and receives data in the same format regardless of which system each client migrated from.

Who this document is for

Product managers and implementation leads planning the integration

Developers building the connection between your platform and MigrateNexus

QA teams validating field mapping and data import logic

2. Authentication

MigrateNexus uses OAuth 2.0 client credentials to authenticate service providers. You authenticate your platform, not individual users. All requests to the MigrateNexus API must include a valid access token.

2.1 Getting an Access Token

Send a POST request to the token endpoint with your `client_id` and `client_secret`. These credentials are issued during onboarding.

Endpoint	POST https://api.migratenexus.io/v1/auth/token
Method	POST
grant_type	client_credentials
Token lifetime	3,600 seconds (1 hour). Refresh by calling the token endpoint again.
Usage	Include in every API request: Authorization: Bearer {access_token}

2.2 Scopes

Access tokens are issued with the following scopes. All are granted by default to service providers.

Scope	Description
migrations:read	List and retrieve migration records for your clients
employees:read	Retrieve normalized employee data from ready migrations
webhooks:write	Register and manage webhook endpoints for event notifications

3. Migration Lifecycle

Every client migration moves through a defined set of statuses. Understanding these is important for knowing when data is available and how long you have to retrieve it.

Status	Meaning	What to do
pending	Client has initiated onboarding but not yet connected their source system.	No action required. Wait for client to complete setup.
in_progress	MigrateNexus is actively retrieving and normalizing data from the source.	No action required. A webhook will notify you when complete.
ready	Data is fully normalized and available to fetch.	Fetch employee data as soon as possible. Available for 7 days.
delivered	Your platform has acknowledged successful receipt.	No further action. Migration is closed.
failed	An error occurred during retrieval. Common causes: invalid credentials, source system unreachable.	Check error detail in the migration record. Client may need to re-authorize.
expired	Data was not retrieved within the 7-day window.	Client must re-authorize a new migration.

Important: Acknowledge delivery

Once your platform has successfully imported the data, call `POST /migrations/{id}/acknowledge`.

This closes the migration and permanently deletes the data from the MigrateNexus delivery buffer.

Migrations not acknowledged within 7 days are automatically expired and closed.

4. Unified Schema

Every migration delivers employee data organized into the following categories. Each field is described below with its data type, whether it is guaranteed to be present, and what it contains.

Fields marked Required will always be present in a completed migration. Fields marked Optional may be null if the source system did not contain that data or if the service provider's consent scope does not include that category.

4.1 Employee Personal Information

Core identity fields. Always included — this category is required for every migration.

Field Name	Type	Required	Description
employee_id	string	Yes	Unique identifier for the employee within MigrateNexus. Derived from the source system's employee ID.
source_employee_id	string	Yes	The original employee ID exactly as it appeared in the source system.
first_name	string	Yes	Employee's legal first name.
last_name	string	Yes	Employee's legal last name.
date_of_birth	date	Yes	ISO 8601 format: YYYY-MM-DD. Example: 1988-03-14.
gender	string	No	Reported gender as stored in the source system.
nationality	string	No	ISO 3166-1 alpha-2 country code. Example: US, GB, CA.
email_address	string	Yes	Primary work email address. Always lowercase.
phone_number	string	No	Normalized to E.164 format. Example: +14045550192.
home_address	object	No	See Address object below. Contains street, city, state, postal_code, country.

4.2 Employment

Job and status information for the employee.

Field Name	Type	Required	Description
job_title	string	Yes	Employee's current job title.

Field Name	Type	Required	Description
department	string	No	Name of the department or team.
employment_type	enum	Yes	One of: Full-Time, Part-Time, Contract, Temporary.
employment_status	enum	Yes	One of: Active, Inactive, On Leave, Terminated.
start_date	date	Yes	ISO 8601. The employee's original hire date.
end_date	date	No	ISO 8601. Termination date. Null if currently employed.
work_location	string	No	Name or description of the employee's primary work location.
cost_center	string	No	Cost center code or name as defined in the source system.

4.3 Organization

Reporting structure and organizational hierarchy.

Field Name	Type	Required	Description
manager_employee_id	string	No	The MigrateNexus employee_id of this employee's direct manager. Null for top-level employees.
business_unit	string	No	The business unit or division this employee belongs to.

4.4 Compensation

Salary and pay structure details. Included when the Compensation category is in the service provider's consent scope.

Field Name	Type	Required	Description
salary_amount	decimal	Yes	Annual base salary. Two decimal places. Example: 87500.00.
currency	string	Yes	ISO 4217 currency code. Example: USD, GBP, EUR.
pay_frequency	enum	Yes	One of: Weekly, Bi-Weekly, Semi-Monthly, Monthly.
pay_grade	string	No	Pay grade or band code as defined in the source system. Example: G5.
bonus	decimal	No	Most recent bonus amount. Null if not applicable or not available.

Field Name	Type	Required	Description
effective_date	date	No	ISO 8601. Date from which the current compensation is effective.

4.5 Payroll History

Historical payroll records. Returns as an array — one object per pay period. Included when the Payroll History category is in the service provider's consent scope.

Field Name	Type	Required	Description
pay_period_start	date	Yes	ISO 8601. First day of the pay period.
pay_period_end	date	Yes	ISO 8601. Last day of the pay period.
gross_pay	decimal	Yes	Total earnings before deductions. Two decimal places.
net_pay	decimal	Yes	Take-home pay after all deductions. Two decimal places.
deductions	decimal	Yes	Total deductions for the period. Equals gross_pay minus net_pay.

4.6 Benefits Enrollment

Health plan and coverage details. Included when the Benefits Enrollment category is in the service provider's consent scope.

Field Name	Type	Required	Description
benefit_plan_name	string	Yes	Name of the benefit plan as defined in the source system.
enrollment_date	date	Yes	ISO 8601. Date the employee enrolled in this plan.
coverage_type	enum	Yes	One of: Employee Only, Employee + Spouse, Employee + Children, Family.
dependent_count	integer	No	Number of dependents covered. 0 if Employee Only.

4.7 Address Object

Used within `personal_information.home_address`. All fields are optional.

Field Name	Type	Description
street	string	Street address including number and street name.
city	string	City name.
state	string	State or province code. Example: GA, CA, NY.
postal_code	string	ZIP or postal code. Stored as string to preserve leading zeros.
country	string	ISO 3166-1 alpha-2 country code. Example: US, CA, GB.

5. Data Types Reference

All field types used across the unified schema are defined here.

Type	Format	Example
string	Plain UTF-8 text. No maximum length unless noted.	Senior Accountant
date	ISO 8601: YYYY-MM-DD. Always returned in UTC.	1988-03-14
decimal	Number with two decimal places. Returned as JSON number.	87500.00
integer	Whole number. No decimal places.	3
boolean	true or false.	true
enum	Fixed set of allowed string values. Listed in each field description.	Full-Time
object	Nested JSON object. Fields described separately.	{ "city": "Atlanta" }
array	JSON array of objects. Applies to payroll_history.	[{ ... }, { ... }]

6. Rate Limits

All API endpoints are rate limited per service provider account. Rate limit headers are returned on every response.

Plan	Requests per minute	Notes
Standard	120	Default for all service providers at launch.
Enterprise	600	Available on request. Contact api@migratenexus.io .

The following headers are returned on every API response:

Header	Description
X-RateLimit-Limit	Maximum number of requests permitted per minute for your account.
X-RateLimit-Remaining	Number of requests remaining in the current minute window.
X-RateLimit-Reset	Unix timestamp when the current rate limit window resets.

7. Webhooks

MigrateNexus sends webhook notifications to your registered endpoint when key events occur. This removes the need to poll the API for migration status changes.

7.1 Events

Event	Triggered when
migration.ready	Data has been fully normalized and is ready to fetch. This is your signal to retrieve and import.
migration.failed	MigrateNexus could not complete the migration. The error field in the payload describes the cause.
migration.expired	A ready migration was not acknowledged within 7 days and has been closed.

7.2 Security – Verifying Webhook Signatures

Every webhook payload is signed using HMAC-SHA256 with your webhook secret. Always verify the signature before processing the payload.

Step	What to do
1	Read the X-MigrateNexus-Signature header from the incoming request.
2	Compute HMAC-SHA256 of the raw request body using your webhook secret as the key.
3	Compare your computed signature to the one in the header. If they don't match, reject the request.
4	If signatures match, process the event payload.

7.3 Retry Behavior

If your endpoint returns a non-2xx response, MigrateNexus will retry the delivery up to 3 times with exponential backoff: 1 minute, 5 minutes, then 30 minutes. After 3 failed attempts, the event is marked as undelivered and no further retries occur.

8. Error Codes

The API returns standard HTTP status codes. The response body will always include an error field and a human-readable message.

HTTP Status	Error Code	Meaning
400	validation_error	The request body is missing required fields or contains invalid values.
401	unauthorized	The access token is missing, expired, or invalid.
403	forbidden	The token is valid but does not have permission to access this resource.
404	not_found	The requested migration, employee, or webhook does not exist.
409	conflict	The action cannot be completed in the current state — for example, acknowledging a migration that is not yet ready.
409	not_ready	Employee data requested but the migration has not yet reached ready status.
429	rate_limit_exceeded	Too many requests. Wait until the X-RateLimit-Reset window passes before retrying.
500	internal_error	An unexpected error occurred on the MigrateNexus side. Retry after a short delay. Contact support if it persists.

9. Glossary

Term	Definition
Migration	A single end-to-end data transfer for one client. Each migration has a unique ID and moves through a defined lifecycle.
Source system	The platform the client is moving from — for example, a payroll bureau, HRIS, or PEO.
Unified schema	The standardized field structure MigrateNexus normalizes all data to, regardless of source.
Template	A pre-built configuration that defines how MigrateNexus connects to a specific source system. Created once, reused for every client on that system.
Consent scope	The set of data categories a client explicitly authorizes during onboarding. Only authorized categories are retrieved.
Acknowledge	The API call a service provider makes to confirm successful import, which closes the migration and deletes the delivery buffer.
Bearer token	The access token passed in the Authorization header to authenticate API requests.
Webhook	An HTTP callback sent by MigrateNexus to your registered URL when a migration event occurs.
ISO 8601	The international date format used throughout this API: YYYY-MM-DD.
E.164	The international phone number format used for phone_number fields: <code>+{country code}{number}</code> .