

Requirements Specification

Integration between Gunnebo (Microsoft Dynamics 365 Finance & Operations) and Norra Finance

1. Purpose

The purpose of this document is to define the requirements for an integration between **Gunnebo's Microsoft Dynamics 365 Finance & Operations (F&O)** environment and **Norra Finance**, covering:

1. Export of **Sales Invoices** from Gunnebo F&O to Norra Finance
 - Including separation of **debit and credit invoices**
 - Including filtering so that **only invoices intended for Norra Finance** are exported
2. Import of **Payments** from Norra Finance into Gunnebo F&O
3. Import of **Vouchers / General Journals** from Norra Finance into Gunnebo F&O

The solution shall be **scheduler-based and OData-driven**, avoiding webhooks to minimize complexity and cost, while supporting Gunnebo's invoice volumes.

2. Scope

2.1 In Scope

- Gunnebo as the F&O tenant and legal entity owner
 - Microsoft Dynamics 365 Finance & Operations
 - OData-based invoice, customer, and journal data retrieval
 - XML enqueue-based payment and voucher posting into F&O
 - Incremental processing with cursor-based state handling
 - Support for multiple Gunnebo legal entities (dataAreald)
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3. Business Context (Gunnebo)

- Invoices may include:
 - Debit invoices (positive amounts)
 - Credit invoices (negative amounts)
 - Only invoices explicitly marked for **Norra Finance** must be exported
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4. High-Level Architecture

Gunnebo F&O

- Source of sales invoices, invoice lines, and customers (OData)
- Target for payments and vouchers (enqueue API)

Integration Platform

- Scheduled OData fetch
- Incremental cursor handling
- Data enrichment and transformation
- Delivery to Norra Finance
- Enqueue push for payments and vouchers

Norra Finance

- Receives invoice data
 - Produces payment and voucher instructions
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5. Entities & Interfaces

5.1 OData Entities (Gunnebo F&O)

Entity	Purpose
InvoiceHeaderEntity	Sales invoice headers
InvoiceLineEntity	Invoice lines
CustomersV3	Customer master data
PaymentEntity	Customer Payments
Journals / General Journal	Voucher posting

All entities must be:

- Public
- Enabled for OData
- Accessible via OAuth 2.0 (Azure AD)

6. Sales Invoice Export (Gunnebo → Norra)

6.1 Invoice Qualification Rules

An invoice must meet **all** of the following conditions to be exported to Norra Finance:

1. Belongs to a Gunnebo legal entity

```
None
```

```
dataAreaId = {gunnebo_company}
```

2. Is marked for Norra Finance

None

```
DestinationCodeId = 'Factoring'
```

3. Is either:

- **Debit invoice** → InvoiceAmount > 0
 - **Credit invoice** → InvoiceAmount < 0
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6.2 OData Fetch – Debit Invoices

None

```
/data/InvoiceHeaderEntity?  
$filter=dataAreaId eq '{data_area_id}'  
and InvoiceNumber gt {start_debit_invoice_number}  
and DestinationCodeId eq 'Factoring'  
and InvoiceAmount gt 0  
&cross-company=true  
&$top=100  
&orderBy=InvoiceNumber asc
```

6.3 OData Fetch – Credit Invoices

None

```
/data/InvoiceHeaderEntity?  
$filter=dataAreaId eq '{data_area_id}'  
and InvoiceNumber gt {start_credit_invoice_number}  
and DestinationCodeId eq 'Factoring'  
and InvoiceAmount lt 0  
&cross-company=true  
&$top=100  
&orderBy=InvoiceNumber asc
```

6.4 Related Data Fetch

Invoice Lines

```
None  
/data/InvoiceLineEntity?  
$filter=dataAreaId eq '{data_area_id}'  
and InvoiceId eq '{InvoiceId}'  
&cross-company=true  
&$top=100
```

Customer

```
None  
/data/CustomersV3?  
$filter=dataAreaId eq '{data_area_id}'  
and CustomerAccount eq '{InvoiceAccount}'  
&cross-company=true  
&$top=10
```

6.5 Functional Requirements – Invoices

- **FR-INV-001**
Debit and credit invoices must be processed via **separate flows and cursors**
- **FR-INV-002**
The system must persist:
 - last_debit_invoice_number
 - last_credit_invoice_number
- **FR-INV-003**
Invoice export must be **idempotent** per Invoiceld
- **FR-INV-004**
Missing customer or line data must result in:
 - invoice marked as FAILED
 - error reason stored
 - other invoices continue processing

7. Payment Import (Norra → Gunnebo F&O)

7.1 Interface

None

```
/api/connector/enqueue/<enqueue_id>
?entity=PaymentEntity
&DataArea={data_area_id}
```

7.2 Functional Requirements – Payments

- **FR-PAY-001**
Payments received from Norra must be normalized to an internal payment model
- **FR-PAY-002**
Each payment must reference:
 - customer
 - amount
 - currency
 - payment date
 - external payment identifier
- **FR-PAY-003**
Payments must be pushed to Gunnebo F&O via PaymentEntity
- **FR-PAY-004**
Duplicate payments must be prevented using external payment id

8. Voucher / General Journal Import (Norra → Gunnebo F&O)

8.1 Interface

None

```
/api/connector/enqueue/<enqueue_id>
?entity=General Journal
&DataArea={data_area_id}
```

8.2 Functional Requirements – Vouchers

- **FR-VCH-001**
Voucher payloads must contain:
 - journal header
 - one or more balanced lines
 - **FR-VCH-002**
Total debit must equal total credit before submission
 - **FR-VCH-003**
Vouchers must be idempotent using an external voucher id
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9. Non-Functional Requirements

Performance

- Paging via \$top=100
- Streaming/batch processing (memory safe)

Reliability

- Automatic retries for transient failures
- Failed records isolated and reportable

Security

- OAuth 2.0 via Azure AD (Code FLow)
 - Least-privilege access
 - Secrets stored securely
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10. Scheduling

- Invoice export runs on configurable schedule (e.g. every 30 minutes)
 - Debit and credit flows are independent
 - Payment and voucher import can be event-driven or scheduled
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11. Acceptance Criteria (Gunnebo)

1. Only Gunnebo invoices marked for Norra Finance are exported
 2. Debit and credit invoices are handled independently
 3. Restarting the job does not duplicate invoices
 4. Payments posted appear in Gunnebo F&O
 5. Vouchers are posted as balanced General Journals
 6. All failures are traceable and explainable
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12. Open Items (for Final Sign-off)

1. Confirm final **Norra Finance invoice schema**
 2. Confirm **PaymentEntity XML requirements**
 3. Confirm **General Journal XML schema**
 4. Confirm if InvoiceNumber is guaranteed monotonic per Gunnebo legal entity
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