Solution Document

Dynamics 365 Business Central

Prepared for:

AppXite

Document revisions

Date	Author	Version	Change reference

Reviewers

Name	Version	Position	Date

Acronyms and abbreviations

The following acronyms and abbreviations are used throughout this document

Item	Definition
NAV	Dynamics 365 Business Edition
BC	Dynamics 365 Business Central
RET	AppXite Commerce Platform
APX	AppXite
WLR	White Label Reseller
AGS	Atea Global Services

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1. Introduction

Your company could use the AppXite Commerce Platform to market and sell various software products.

Currently, AppXite Commerce Platform works in two set-ups:

1. With Tier-1 Resellers (Direct Resellers) – existing set-up where the Vendor invoices the Resellers directly for all purchases done by their End Customers (EC). In this set-up, Your company collects only the service fee from its Resellers for the use of AppXite Commerce Platform

2. With Tier-2 Resellers (Indirect Resellers) – a new set-up, currently being implemented, in which Your company takes on a role of a Distributor. This means that the Vendor would invoice Your company and Your company would further invoice its Resellers for all EC product consumption

In addition to the existing two scenarios, it is possible that Your company will get involved in new models of operations with the vendors, resellers and customers. Your company will provide white labeling services to resellers. This entails preparation and electronic dispatch of invoices to end customers on behalf of resellers. These invoices will have custom layout including reseller's name, address, bank details, tax registration number, etc. to appear as if they are coming from the reseller.

Your company may also offer other A/R services such as receiving payments from end customers on behalf of the Reseller, sending out overdue invoice reminders and applying overdue interests to resellers end customers.

This document provides a high-level overview of the solution describing the flow of data between the involved components (section 2). It also outlines possible deployment scenarios (section 3) as well as available documentation (section 4).

Custom objects will be enhanced so that their labels and captions are also available in Dutch.
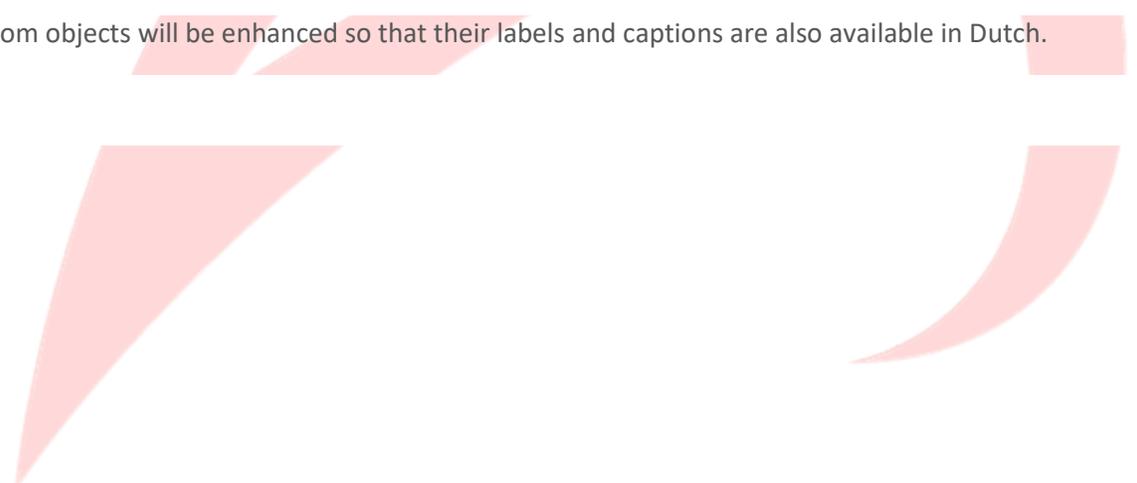
2. High Level Architecture

Figure 1 below provides an overview of the data flow between the involved applications in the solution.
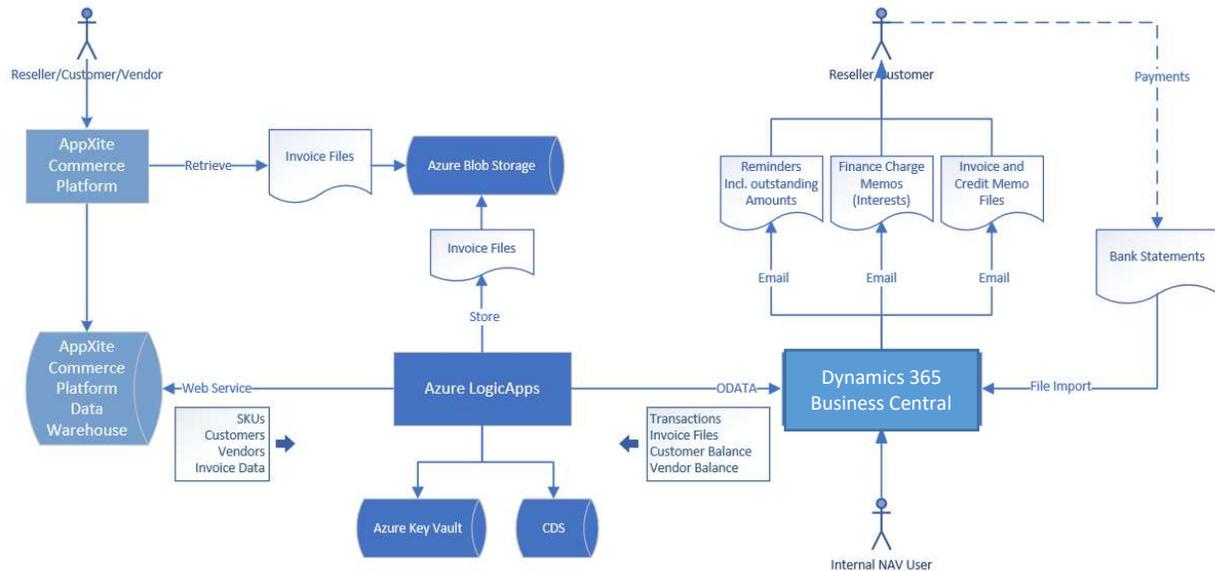

Figure 1 - AppXite High Level Architecture

AppXite Commerce Platform captures all the data that serves as the foundation for invoicing resellers and customers and stores this in the AppXite Commerce Platform Data Warehouse.

Logic Apps will periodically retrieve new and updated Customers, Vendors and SKUs from AppXite Commerce Platform and insert or update the same entities in BC. An on-boarding process is in place for these entities i.e. when a new Customer, Vendor or SKU is created in BC a user must log in to populate any additionally required information.

Logic Apps will also periodically retrieve new invoice data from AppXite Commerce Platform and transfer to BC. As invoice data is received in BC, it will create and post invoices, generate invoice files and distribute the files via email to the customers. Invoice data from AppXite Commerce Platform is considered final i.e. updates to invoices in AppXite Commerce Platform will not be transferred to BC. The billing data will initially be stored in staging tables. In order to avoid bottlenecks and speed up the import process, no validation will be undertaken during the import process. Validation will take place after the import process completes. This makes it necessary that the data pushed into NAV is pre-validated. In this approach it becomes critical that all master data already exists in NAV before the billing run initiates.

Multiple companies will be configured in BC (not depicted in Figure 1). One company represents Your company and supports invoicing of Tier-1 and Tier-2 resellers. Additional companies can be created with each company representing a White Label Reseller supporting invoicing of the end customers on behalf of the reseller. White Label Reseller companies can be configured differently to reflect the level of

services the WLR has signed up for i.e. the features are available for the WLR. This could be invoicing the WLR's customer, accepting payments, charging interests, etc. on behalf of the WLR.

Only resellers are synchronized over to Your company. If Your company starts selling to end customers directly it is assumed a separate BC company will be configured like white label reseller companies, both in AppXite Commerce Platform and BC.

Currently, Vendors are only synchronized over to the AppXite BC company from AppXite Commerce Platform i.e. Vendors are not synchronized over to WLR companies.

All SKUs are currently synchronized over to all BC companies. In the future, if WLRs are allowed to log into the WLR BC company, this can be changed so that only the SKUs sold by the WLR are synchronized over the specific WLR company.

As part of the on-boarding process of white label resellers, Logic Apps must be configured to indicate which BC company in which SaaS environment data from AppXite Commerce Platform should be distributed to.

Generated invoice files are made available to AppXite Commerce Platform by Logic Apps. The invoice process in BC will store the distributed invoice files in a table, and Logic Apps will subsequently move these to Azure Blob Storage. At the same time a reference to the file is stored in the AppXite Commerce Platform Data Warehouse, allowing AppXite Commerce Platform to retrieve the invoice file directly from the Azure Blob Storage when resellers and customers request these via the AppXite Commerce Platform web site.

Payments from resellers are imported into BC via Bank Statements in ISO 20022 format. The payments are settled against invoices based on the invoice reference number. If the Bank Statement for Your company contains end customer payments for WLRs, it is currently a manual process to re-allocate those payments to the appropriate WLR BC Company. The invoice reference number should have a prefix indicating which BC Company the payment belongs to.

Customer and Vendor balances are transferred periodically from BC to the AppXite Commerce Platform Data Warehouse. Similarly, transactions like Invoices, Credit Memos, Payments and Interest Charges are transferred periodically as well. This enables AppXite Commerce Platform displaying both the balance as well as all the transactions that makes up the balance. There is currently no separate interface to transfer tax amount i.e. the amounts are included in the total amounts being transferred.

BC furthermore supports sending out Invoice Reminders and AR Statements to resellers and customers via email.

Standard out-of-the-box BC features are available to Your company and WLRs as well.

Interfaces in BC are exposed via OData v4 web services using JSON format. These interfaces will enable BC to receive data. Same interfaces will allow retrieval of data from NAV. All interfaces exposed by BC acts as listeners, whether data is pushed into or pulled through them.

3. Information Originating from AppXite Commerce Platform

3.1 Customers

Customers are going to be managed by AppXite Commerce Platform. When a customer entity is activated, its master data can be pushed to NAV using the interface for customers. It will update the Customer table in NAV. A custom field will keep track of the customer ID from AppXite Commerce Platform.

This interface will enable not only the creation of new records but also to push through any changes to customer master data.

Once a customer entity has been migrated to NAV it will not be ready to be used in sales documents. It needs to go through a process of on-boarding. This process includes adding various pieces of information required to enable posting of documents like different posting groups.

The on-boarding process also includes assigning of reminder and finance charge codes that will determine when and how frequently a customer will be reminded to pay. If they do not pay on time then finance charge codes will play their role to determine when and how much interest to charge on outstanding balances.

During the process of on-boarding payment terms will also be assigned to customers.

3.2 Vendors

In general, vendors will be created in AppXite Commerce Platform. When a vendor entity is activated, its master data can be pushed to NAV using the interface for vendors. It will update the Vendor table in NAV. A custom field will keep track of the vendor ID from AppXite Commerce Platform.

This interface will enable not only the creation of new records but also to push through any changes to vendor master data.

Some vendors will be created in NAV. It is not necessary that all vendors in NAV should be reflected in AppXite Commerce Platform. However, it will be very easy to determine which vendors do not have a corresponding entity in AppXite Commerce Platform using the ReThink ID field.

Like customers, vendors too will have to go through the process of on-boarding. However, this process is simpler for vendors. It includes assignment of posting groups and terms of payment.

3.3 Resellers

Since resellers will be invoiced for services provided, they will be reflected in NAV as a customer. Customer interface will be used to move and modify data related to resellers. They too will have to go through the on-boarding process as described in the section for customers.

3.4 Resources/SKU

All SKU's will be managed in AppXite Commerce Platform. NAV resources correspond to SKU's in AppXite Commerce Platform.

SKU's will be moved to NAV using a custom interface developed specifically for this purpose. This interface will take care of creating new resources. If a resource already exists but has been updated in AppXite Commerce Platform it will be updated in NAV too using the same interface. A field in NAV, ReThink ID, will enable Logic Apps to determine which resource needs to be updated.

Once a SKU has been created in NAV as a resource it cannot be used until it has been through the process of on-boarding. In the case of a resource, on-boarding will include assigning various posting groups and the unit of measure to the resource.

3.5   Exchange Rates

 Each transaction from AppXite Commerce Platform will carry the exchange rate for the transaction. This eliminates the need for exchange rates for these transactions.

Exchange rates are also required for period end revaluation of balances in bank accounts and the open transactions for customers and vendors. This exchange rate will be obtained from Your company office and NAV will be updated manually.

3.6   Currency Codes

AppXite Commerce Platform maintains its own currency codes for different currencies. These codes do not change once created and new codes are rarely required. It was decided that codes from AppXite Commerce Platform will be manually imported in NAV. Any subsequent changes to these codes in AppXite Commerce Platform will also be monitored and reflected in NAV by users.

3.7   Billing Data

This interface will be used to push billing information from AppXite Commerce Platform to NAV. This information will form the basis for creating sales invoices which will be sent out to the customers after the end of their specific billing cycle. Billing cycles of different customers are unlikely to be co-terminus. Hence, the processing of billing will be carried out through out each month.

This information will initially be stored in staging tables.

In order to avoid bottlenecks and speed up the import process, no validation will be undertaken during the import process. Validation will take place after the import process completes.

This makes it absolutely necessary that the data pushed into NAV is pre-validated. In this approach it becomes critical that all master data already exists in NAV before the billing run initiates.

4. Information from Other Sources

4.1   Electronic Bank Statements

Bank transactions, including amounts received from customers, will be imported in NAV using an import routine. Your company, in conjunction with their bank, needs to finalize ISO 20022 compliant format to manage the import of the electronic bank statements. A custom routine will be used to enhance the existing import routine.

These bank statements will be imported from the bank reconciliation screen. The custom routine will parse the description to see if any existing, unpaid customer invoices are included. If any is found, the amount will be offset against it. Unmatched amounts will be posted to a Reseller Liability Account which will be managed manually.

5. Information Generated in NAV

5.1   Customer Transactions

AppXite Commerce Platform will enable customers to view their transaction history and status of their invoices. This makes it necessary that transactions originating in NAV are also reflected in AppXite Commerce Platform in a timely manner.

NAV will record different types of transactions that customers would be interested in. Although AppXite Commerce Platform has all the original billing information sales documents form NAV will have VAT included in their totals. This element, VAT, is missing in AppXite Commerce Platform. On top of sales documents NAV will record payments from customers and interest charged on overdue balances.

All those transactions that affect the balance of customers will be exposed using a single interface which makes the integration simple and efficient.

It will include:
- Payments
- Tax inclusive Sales Invoice and Credit Memos
- Interest on Overdue Balances

This interface will allow AppXite Commerce Platform to obtain the status of a sales document. AppXite has suggested following three which will be accommodated via this interface:
- Processed: when invoice is sent out.
- Paid: when invoice has been paid.
- Overdue: when invoice hasn't been paid past the due date.

Current balance of an invoice will be exposed through this interface. It will show the net amount after any full or partial payment has been applied to it.

5.2   Customer and Vendor Balances

An interface will enable AppXite Commerce Platform to query NAV for the outstanding balances of vendors and customers. Logic Apps will bridge the communication gap. Whenever the balance of a customer or vendor will change values in this interface will be updated along with time stamp. This will enable Logic Apps to pick only delta data.

5.3   Electronic Funds Transfer (EFT)

NAV provides the ability to export EFT files to make payments to vendors. However, the format of the file generated by NAV does not fully comply with the requirements of client's bank.

Existing NAV functionality will be modified and enhanced to prepare files that comply with ISO 20022 standards which has been implemented by client's bank.

5.4   Emails

5.5   Invoices

NAV will be responsible for emailing invoices to customers. There might be times when customers may request another copy of the invoice. To cater for such an eventuality, a copy of the invoice will be saved in a custom table in NAV in PDF format. Logic Apps will copy this file in Azure BLOB Storage and then remove the file from NAV. Subsequently, whenever a customer requests a copy of an invoice via the web interface of AppXite Commerce Platform, it will retrieve the file from the storage and render to the customer.

5.6   Invoice Due Reminders to Customers

If customer invoices are past due date, NAV will send reminder emails at pre-defined intervals. These emails will include list of all outstanding transactions.

5.6.1   Finance Charge Memos

Whenever customers exceed the granted period for payments to clear invoices NAV will charge interest on overdue balances. The details of these charges will also be emailed to customers.

6. Setups and User Guide:

6.1   SMTP

Following setup needs to be completed by users in order to send out emails.

6.2   Deferral Templates

Deferral templates will be used to spread revenue that spans more than a month. Which deferral template to use in a particular sales line will depend on the number of days over which the revenue needs to be spread. This is a custom modification.

From Sales & Receivables Setup > Navigate click on 1.

1 Launches the page to manage the ranges of days and the associated deferral template.
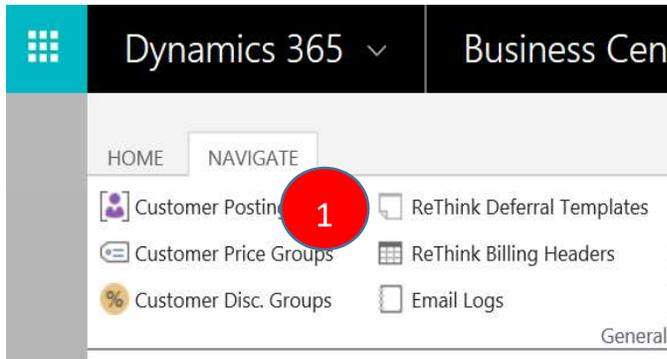
In the following screen:

1 Allows to create a new Template

2 & 3 Day From and Day To determine the range of days which will be determined from the related sales line.

4 This is a description to assist users

5 This is the code of the deferral template that will be used in the sales lines

If the system cannot find a relevant deferral template for a sales line that document will not be posted.

On Sales & Receivables Set following text box has been created. This should be populated with the email address to which a simple email will be sent that sales document(s) may be stuck due to missing deferral template.

In this case user will have to manually determine a template and assign it. If one doesn't exist, then the user will have to create one, update the above table, assign it to the document(s) and then post them.

6.3   On-Boarding Process

6.3.1   Customers

Customers will have to go through on boarding process in reseller companies from the very first round of data update from AppXite Commerce Platform.

Above screenshot is that of a customer card. Users will have to provide the three pieces of information for customers in reseller companies.

Same applies for the following information:

1 Payment Terms determine the due date.

2 Reminder Terms will determine the rules used when reminders are sent to customers for outstanding amounts.

3 Fin. Charge Terms will determine the rules used when and how much interest should be charged for overdue invoices.

4 Cash Flow Payment Terms assist in preparing cash flow forecasts.

Each end customer in reseller companies will require 1, 2 and 3. These companies will not require 4.

Once the process of on boarding is complete following check mark must be removed. If it is not removed it will be listed as an error during billing data validation. This is necessary to avoid errors of processing, for instance those resulting from missing posting groups. They can stop the entire posting process and must be avoided.

On-Boarding Required: ☑

6.3.2 Vendors

Vendors will not be imported in reseller companies.

Following on boarding will only be required in Your company.

Following is a screenshot of a vendor card. All three elements in the following screen assist in different types of postings.

All vendors created from the vendor interface will need to be updated with the posting groups indicated above and 1 and 2 from below.

Once the process of on boarding is complete following check mark must be removed. If it is not removed it will be listed as an error during billing data validation. This is necessary to avoid errors of processing, for instance those resulting from missing posting groups. They can stop the entire posting process and must be avoided.

On-Boarding Required: ☑

6.3.3 Resources

All resource master data in Your company as well as reseller companies will be acquired from AppXite Commerce Platform. Hence, they will always have to go through on boarding.

Following is a screenshot of a resource card.

All three pieces of information assist in postings.

Once the process of on boarding is complete following check mark must be removed. If it is not removed it will be listed as an error during billing data validation. This is necessary to avoid errors of processing, for instance those resulting from missing posting groups. They can stop the entire posting process and must be avoided.

6.3.4   On-Boarding Status Report

A report has been developed to assist with the process of on boarding. Same report works with customers, vendors and resources.

It provides a list of those entities that require on boarding.

From Sales & Receivables Setup > Navigate click on 1.
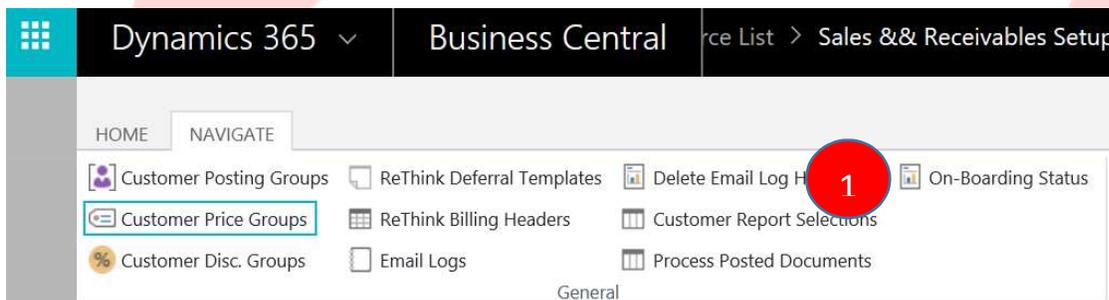
From the following screen select the entity type by clicking on 1

Click on 2 to either print or preview the result

EDIT – ON-BOARDING STATUS REPORT

Filter

Record Type

Customer
Vendor
Resource

Send to...   Print   Preview   Cancel

Following is how the report appears.

No.	Name	Name From ReThink	Last Modified by ReThink	ReThink ID
001481	AMTRA Solutions Ltd.	AMTRA Solutions Ltd.	10.07.2018 16:33:55	2da5773e-d631-4e59-9c5f-f39640073dbf
000023	Atea Global Services	Atea Global Services	10.07.2018 00:38:53	f2f8aa48-c45e-4696-98cf-1b6e22c63076
000618	AMTRA Solutions Ltd.	AMTRA Solutions Ltd.	09.07.2018 21:55:27	2da5773e-d631-4e59-9c5f-f39640073dbf
000865	Trans4mation Swiss AG	Trans4mation Swiss AG	10.07.2018 00:48:30	02f32a34-59c1-415c-b2ae-8d97d1f9dc1b
000908	ViBi Cloud	ViBi Cloud	09.07.2018 21:52:30	ecce905a-1672-4190-8c7d-cddf306ad0dd
000909	ANK Business Services GmbH	ANK Business Services GmbH	10.07.2018 00:36:18	7b08d855-7169-4ec0-afd1-075ad5d20a10
000936	Geant Belgium	Geant Belgium	10.07.2018 00:39:01	769d44ce-0d73-4aaf-b787-1c11ecc2d56d
000937	Geant Luxembourg	Geant Luxembourg	10.07.2018 00:42:31	c588c173-2e93-404a-a309-4508cb6dd7ae
000938	Geant Switzerland	Geant Switzerland	09.07.2018 21:48:54	8a9e58d1-1ca1-4a73-9b2d-98f832c2166a
000940	Geant Portugal	Geant Portugal	10.07.2018 00:44:36	0006eb60-c028-4edc-84c9-63837031128e
000941	Geant Netherlands	Geant Netherlands	09.07.2018 21:49:28	fcc88041-c766-4e4e-a2bb-9f02425c8d74
000945	Geant Cyprus	Geant Cyprus	09.07.2018 21:55:51	e6b41106-c38b-4e1b-9798-f8b7ba1acd80
001043	Terrabit	Terrabit	09.07.2018 21:56:11	c88097a9-1ae1-4545-9e46-fa454b5b8363
001115	innobit ag	innobit ag	10.07.2018 00:47:06	f4b119c1-ebdf-434e-989d-7f5bd02dccc2
001121	Snapnet	Snapnet	09.07.2018 21:50:04	4da4cce3-fcf3-4858-bbda-a5a3ee8791c7
001161	Veber Limited	Veber Limited	10.07.2018 00:36:34	6eba829f-cc7f-4a25-b033-089d9dcb6351
001163	Standard Technology Limited	Standard Technology Limited	10.07.2018 00:42:39	4582c3d2-22fc-4ab9-88d4-462d3c1b787b
001203	StepIN	StepIN	10.07.2018 00:37:27	d3c045a5-eac5-4779-ad64-

Dynamics 365 ∨   Business Central   › Sales && Receivables Setup   Environment Sandbox

7. Job Queue

A number of processes that will be managed using job queue in NAV. At the moment following processes will be managed using this mechanism. These jobs will have to be created with the names provided by the users.

- Creation of sales documents from AppXite Commerce Platform billing data
- Posting of the above documents
- Creating and posting reminders and finance charges
- Emailing various documents to customers

Job for these tasks will be defined in the template company so that all subsequent companies created from it will inherit them. However, these jobs will be made inactive in the template company. When a new company is created based on the template company the users will have to activate the job and define the schedule for these jobs.

It is important that the users are mindful of the fact that multiple jobs running concurrently can put stress on the system. Therefore, these jobs should be scheduled in a way that they don't run simultaneously.

Type job queue in the search box.

1 Provides a list of jobs

2 Provides buttons to control them

Clicking Edit, 3 on the above screen, provides more options for any job.

EDIT – JOB QUEUE ENTRY CARD

✕ To edit the job queue entry, you must first choose the Set On Hold action.   Set On Hold

Codeunit · 1441 · Headline RC Order Processor

General   Show more

Object Type to Run	Codeunit	Description	
Object ID to Run	1441	Earliest Start Date/Time	3/26/2018 11:36 PM
Object Caption to Run	Headline RC Order Processor	Status	Ready

Recurrence

Recurring Job		Run on Saturdays	
Run on Mondays		Run on Sundays	
Run on Tuesdays		Starting Time	
Run on Wednesdays		Ending Time	
Run on Thursdays		No. of Minutes between Runs	0
Run on Fridays		Inactivity Timeout Period	0

As highlighted in the above screen, users can control when and how frequently a job will run.

8. Email History

Each email sent to customers is logged whether it is for invoice, credit memo, reminder or finance charge. This is a local log and does confirm the delivery of email. This log is only a record of the sent emails. If an email is not delivered a notification should be received by the email address used as the sender in NAV SMTP configuration.

Sales & Receivables Setup > Navigate and click on 1:
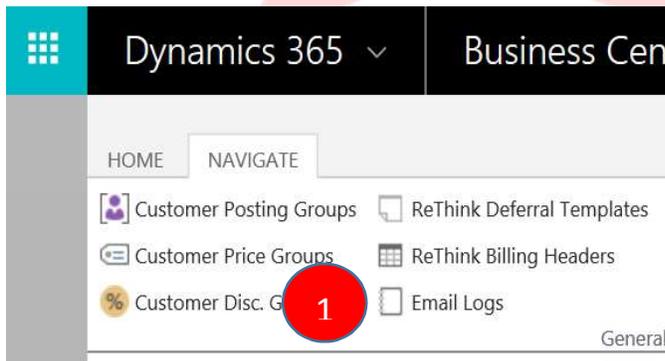
This will show a log of all batches of emails sent.

1 Lists all batches of emails sent. It indicates the type of documents sent in the email batch, when the process started and when it ended.

2 Enables users to see which specific documents were sent in the batch.
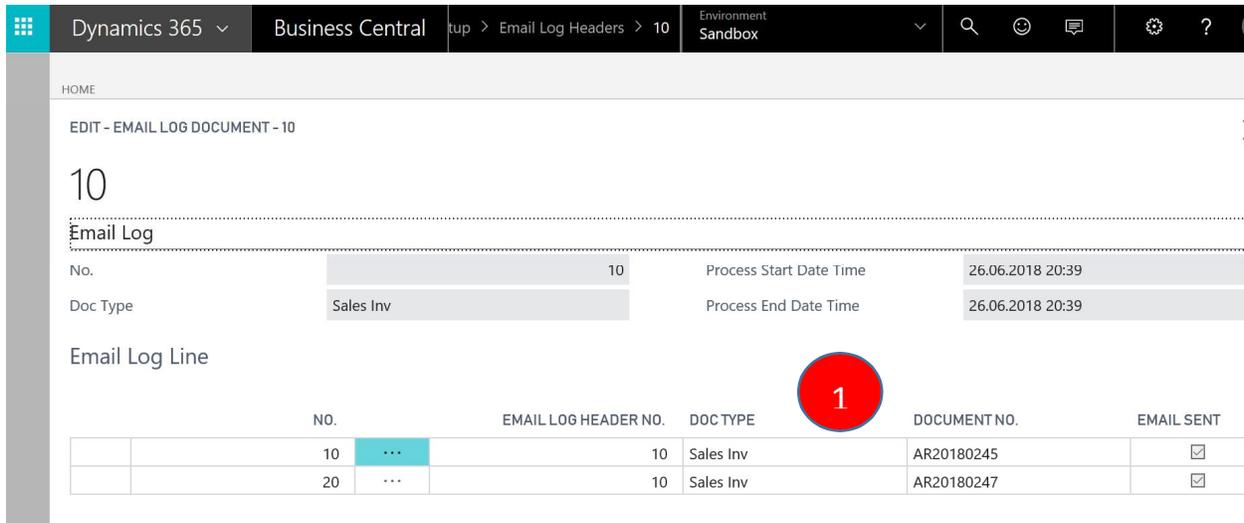
1 Above lists individual documents for which emails were sent.

Over time data will accumulate and may not remain useful. However, this data cannot be deleted from these pages.

9. AppXite Commerce Platform Billing Data

Billing data received from AppXite Commerce Platform will be saved in staging tables. This data will not be editable from NAV. However, users can view the data.

From Sales & Receivables Setup > Navigate click on 1.
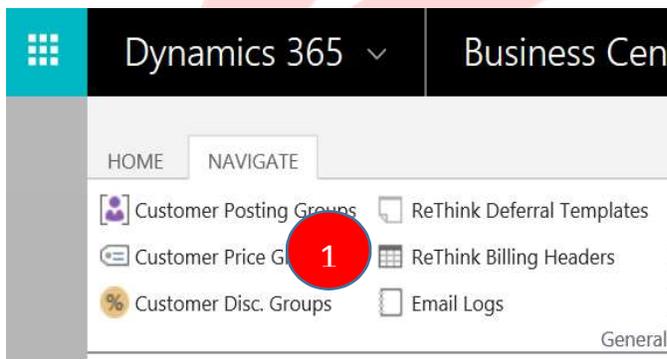
Top part of the next screen shows the following buttons.
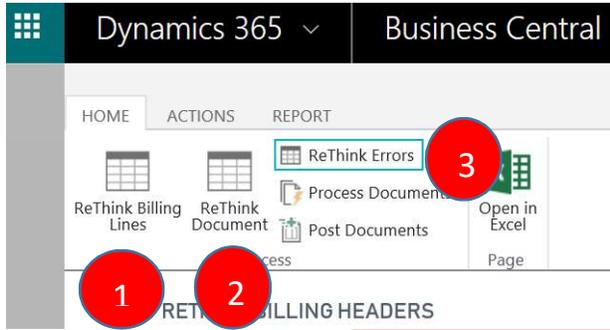
While bottom part of the screen displays the header lines.

1 Shows the lines for the header record

2 Shows the header and lines in a document format as follows:

3 Shows all errors for the header and its lines as follows:

None of the above data can be changed or deleted.

Over time data will continue to accumulate and may eventually slow down the system. Users can delete billing data which is over two years old. If the data is less than two years old it cannot be deleted; user will get an error message if such an attempt is made.

Your company will have a sales invoice format which displays a lot of data from the Billing information from AppXite Commerce Platform. To make the system efficient and prevent a lot of data duplication this data is not posted. Instead, this billing data will be referenced by the invoice from these staging tables. If data is deleted after two years related invoices will be not be generated by the system. Instead user will get an error message. However, copies of these invoices will be available from Azure BLOB Storage.

Billing history can be removed from the by clicking on 1 below.
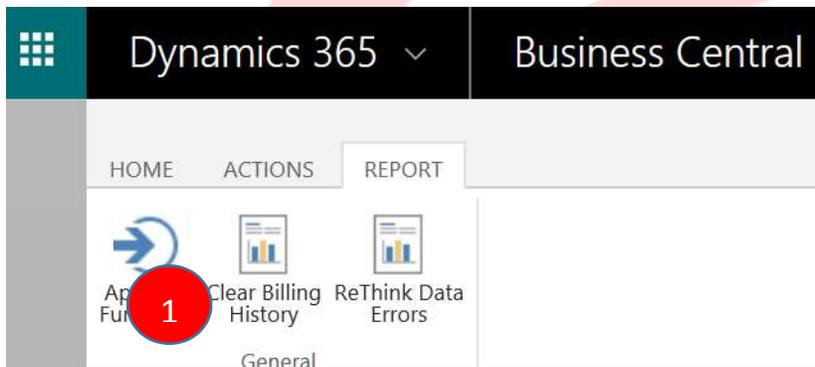
10.   Manual Data From AppXite Commerce Platform

In order to keep AppXite Commerce Platform and NAV consistent some master data is expected from the former. The types of data are listed below.

- Currency
- Country
- Language

However, no interface is required due to the infrequent updates required.

This data has already been incorporated in the test company. From there it will be migrated to the Template Company and AppXite Company. Whenever there is addition or changes to this data there will have to be a manual exercise to update all the companies.

11.   Bank Reconciliation

When bank statements are imported in a bank reconciliation there are likely to be customer payments that need to be applied to their corresponding invoices. This process is initiated by clicking 1 on the following screen:

On the above screen 2 represents the transactions that have been imported using a bank statement import.

After clicking on 1 following screen will appear:

EDIT – TRANS. BANK REC. TO GEN. JNL.

Saved Settings

Name	Last used options and filters

Options

Gen. Journal Template	GENERAL
Gen. Journal Batch	FROMBANK

Schedule... OK Cancel

It is important to select the template and batch shown in the above screen.

This will ensure that the document number provided by the system is in accordance to the format requested by Your company as follows:
PAY18000001