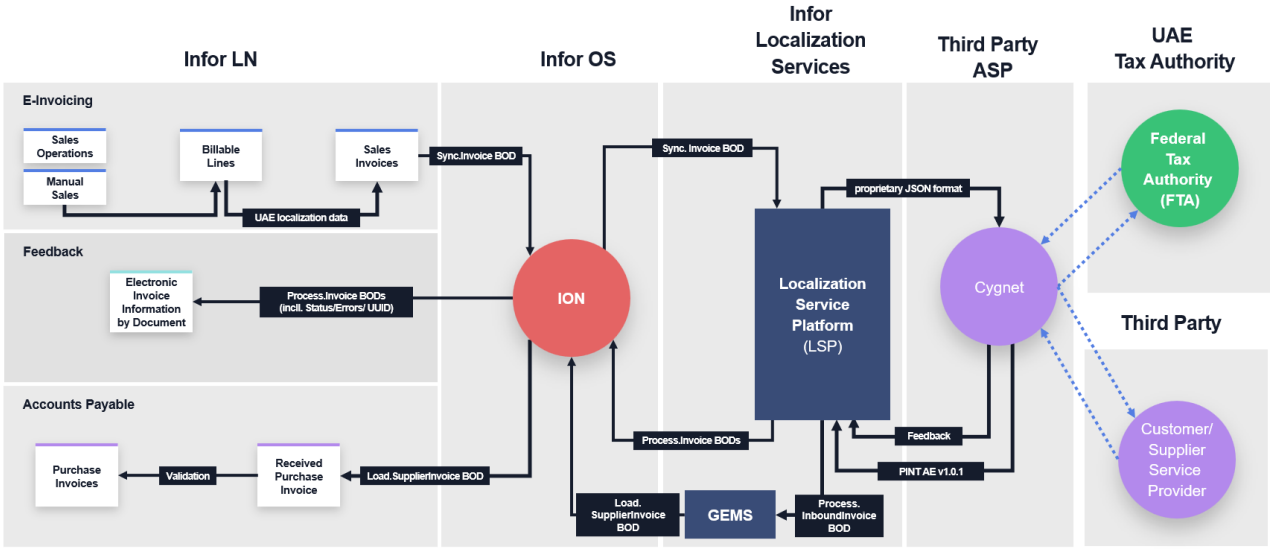
Integration with Localization Services Platform for UAE e-invoicing

Introduction

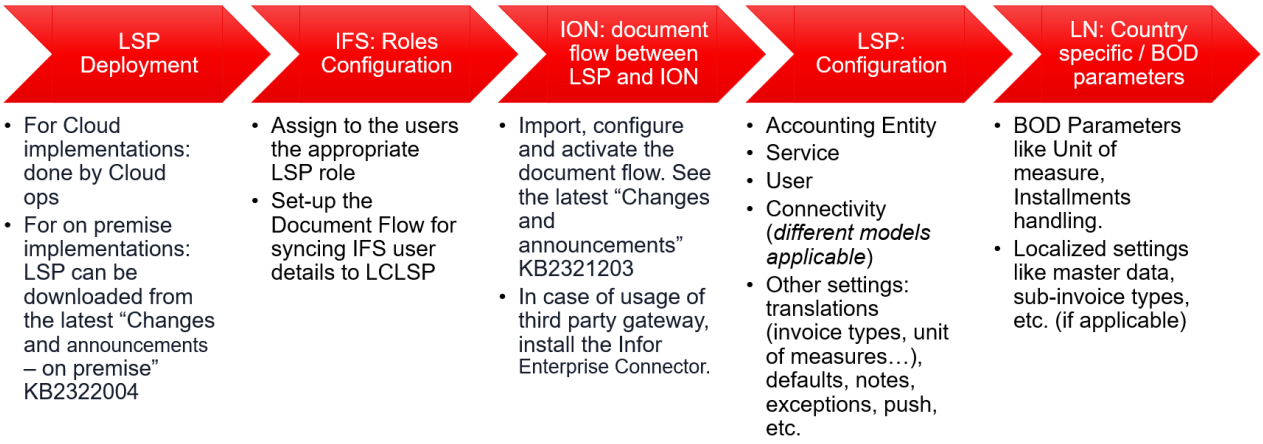
Infor LN now supports United Arab Emirates B2B e-invoicing requirements through integration with the Infor Localization Service Platform. The solution is designed for the UAE e-invoicing framework, in which VAT-registered B2B and B2G transactions must be exchanged through accredited service providers using the PEPPOL-based PINT AE specification.



In the session Tax Connector Invoice Data (lpare1110m000), which is linked to billable lines and invoices, the localized invoice details are defaulted and can be manually modified. This information is applied during invoice composition to ensure that billable lines with different UAE e-invoicing attributes are processed on separate invoices when required.

Configuration

The diagram below summarizes the general implementation steps for any integration between Infor LN and LSP. This document provides additional information about the configuration steps specific to the United Arab Emirates e-invoicing solution. Please refer to docs.infor.com and education.infor.com for additional details.



Create and activate the ION document flow

In Infor ION, create and activate the document flow that connects the LN CE company to the LSP platform.

Include the following BODs in the document flow:

- Invoice BOD (Sync and Process)
- Supplier Invoice BOD (Load)

LSP Configuration

The required LSP configuration steps include:

- the creation and activation of the accounting entity, including the services:
    - TaxReporting – UAE Cygnet (PINT AE)
    - Vendor Invoices (see dedicated chapter)
- the assignment to the users of the required Services
- the Webservices Gateway
- the Settings, including:
    - Default Codes, where the default operation type (expected “goods”) must be defined
    - Tax Reporting Translations Maintenance, and expecially:
        - Allowance Reason Code
        - Exception from Tax Reason (please note that the LN tax codes should be preceded by the two digits country code and “_” (e.g. “AE_STD” for LN STD tax code)
        - Payment mode
        - Reason for credit note
        - Tax Category code (please note that the LN tax codes should be preceded by the two digits country code and “_” (e.g. “AE_STD” for LN STD tax code)
        - Unit of Measure
    - (optionally) Supplementary data and Output Extensibility (for customization of the output)
- (optionally) the push method activation in Connectivity/System Setup/Output Generation Default, for automatic processing of invoices
- In the “Customer Endpoint Maintenance” form define the buyer endpoint ID to be prioritized by LSP (e.g. 9900000098, to be entered when the buyer is not subject to UAE e-invoicing regulations. Note that the scheme 0235 is the fixed UAE scheme identifier and is defaulted by the mapping, so LSP outputs BillToEndpoint = 0235:9900000098)

LN Configuration

Special e-invoicing Scenario

The UAE e-invoicing functionality supports UAE special e-invoicing scenarios. These scenarios are represented in the invoice data and transferred to the Localization Service Platform for generation of the required UAE-compliant e-invoice structure:

- Free Trade Zone: If this checkbox is selected, the transactions related to the business partner are performed in an area without standard customs duties or taxes. In this scenario, you must specify the details of both the customer and beneficiary on the Electronic Invoice.
  Note: This scenario is applicable only for the commercial invoices and tax invoices.
- Deemed Supply: If this checkbox is selected, the Electronic Invoice transaction related to the business partner is considered as a taxable supply for VAT purposes, even if the actual payment is not received for the Electronic Invoice.
- Profit Margin Scheme: If this checkbox is selected, the VAT amount of the Electronic Invoice transaction is calculated only on the profit margin (difference between the purchase price and resale price) of the business partner (supplier).
- Summary Invoice: If this checkbox is selected, multiple sales transactions for a specific period are consolidated into a single summary invoice. The frequency of billing must be specified for Summary invoices.
- Continuous Supply: If this checkbox is selected, the sales transactions are registered and processed in a recurring pattern or included in periodic e-invoicing.
- Exports: If this checkbox is selected, the Electronic Invoices are created for the transactions related to the goods or services supplied to the customers outside UAE (United Arab Emirates). This scenario is automatically defaulted if the ship-to business partner address has country different from United Arab Emirates..
- Frequency of Billing: The frequency at which the customer is billed for the products or services. Allowed values:
  - DLY - Daily
  - WKY - Weekly
  - Q15 – Once in 15 days
  - MTH - Monthly
  - Q45 – Once in 45 days
  - Q60 – Once in 60 days
  - QTR – Quarterly
  - HYR – Half-Yearly
  - YRL – Yearly
  - OTH - Others
  - Not Applicable
    Note: This field is enabled only if Summary Invoice or Continuous Supply scenarios are selected.
- Supply Through e-commerce: If this checkbox is selected, the online orders are delivered directly to the customer using an electronic commerce medium.

In the Invoice BOD, the scenario is included in the User Area Property “lcl.TransactionCode”, while in the JSON file generated by LSP the same information is included in the "TransactionTypeCode"(For example: *"TransactionTypeCode":"01000000*").

Export

For export transactions, the solution supports the handling of customs references and Incoterms, when applicable. These details can be derived from shipment-related information and made available in the session Tax Connector Invoice Data (lpare1110m000) for inclusion in the electronic invoice output.

- Incoterms: The Incoterms standard code defined for the delivery terms group. Note: This value is defaulted from the Delivery Terms field in the Shipments (whinh4130m000) session. This value can be updated only if the Exports field is set to Yes, after the billable line is unconfirmed and the status is On Hold.
- Terms of Delivery: The delivery terms group associated with the delivery terms selected in the Incoterms field.

Exceptions can be specified in the session Special e-invoicing Scenario by Business Partner (lpare0110m000).

Credit Notes

Credit note processing has been enhanced for UAE requirements. The solution supports the use of UAE-specific credit note document types and enables credit note reason information to be passed for further processing by the Localization Service Platform.

- LN publishes the reason code in the InvoiceBOD in an LN specific UserArea property "ln.Reason". This can be mapped in the LSP session “Tax Reporting Translation Maintenance”, translation “Reason for Credit Notes”, again the standard reasons accepted:
    - DL8.61.1.A – If the Supply was cancelled
    - DL8.61.1.B – If the tax treatment of the supply has changed due to a change in the nature of the supply
    - DL8.61.1.C – If the previously agreed payment for the supply was altered for any reason (i.e. bad debt relief)
    - DL8.61.1.D – If the recipient of the goods or services returned them to the registrant in full or in part, and the payment was returned in full or in part
    - DL8.61.1.E – If the tax was charged or tax treatment was applied in error
    - VD – Volume Discount
- LSP extracts and communicates the details of the original invoice. Please note that if the reason is “volume discount” (VD), the preceding invoice reference in a specific billing reference is not required.
- In case of “credit and rebill” usage, the defaulted scenario is the same one as the original invoice.

Table sharing

In case of multicompany implementations, the table sharing set R83500 01 “United Arabic Emirates Ctr Loc” can be implemented and the localized tables shared across Financial and Logistics companies.

BOD Parameters

The following parameters should be defined in BOD Parameters (tcbod0100m000):

- “Publish installments in prepayment invoice node”. This parameter triggers a different logic for final invoices: settled installment invoices, for which the Settlement Type is not Advance Payment Request, are published in the InvoiceHeader/PrePayment/PrePaymentInvoice node.
- “Include Costs in Extended Amount”. This parameter triggers a different method for publishing the costs amount in InvoiceLine/ExtendedAmount, instead of InvoiceCharge/Amount.

Business partner maintenance

In case of payments by bank account it is required to maintain the Bank relation used in the operation, which can be entered in the role “Pay-by business partner” (tccom4114s000), “Paying” tab. This information is required when the translated payment mode defined in LSP is “30 – Credit Transfer”.

The Bill-To country subdivision is a required component of the address for all UAE invoices, according to the official e-invoice scheme. It is therefore required to maintain the State/Province field for all business partner addresses, to avoid validation errors. Supplementary data could be used for introducing a default value for example for export invoices.

Support is provided for UAE-specific buyer and tax identification requirements, including the distinction between Tax Registration Number and Tax Identification Number where applicable. The TRN code must be stored in Tax Numbers by BP (tctax4100m000), and the TIN must be specified in Fiscal IDs by BP (tctax4101m000).

	UAE Requirement	**LN**	**LSP**
Standard B2B	TIN = first 10 digits of TRN	TRN stored in Tax Numbers by BP (tctax4100m000) (or ERM) for country UAE	Extract the TRN from the BOD node CustomerParty/PartyIDs/TaxID with schemeName "TaxIdentificationNumber", and the TIN from first ten digits of the same.
VAT Group	TRN = Group TRN TIN = Individual company TIN (different)	TRN stored in Tax Numbers by BP (tctax4100m000) (or ERM) for country UAE TIN stored in the Chamber of Commerce for the BP (tccom4100s000) for country UAE	Extract the TRN from CustomerParty/PartyIDs/TaxID with schemeName "TaxIdentificationNumber", and the TIN from the schemeName CountryIdentificationNumber
Small businesses	No TRN TIN = Individual company TIN	TIN stored in the Chamber of Commerce for the BP (tccom4100s000) for country UAE	Extract the TIN from the schemeName CountryIdentificationNumber
B2C	No TRN (any country) No TIN (UAE)	LN: No Tax ID for any country. No Fiscal ID for UAE	In case of no TaxIdentificationNumber for any country and no CountryIdentificationNumber for UAE, transaction is considered B2C and the invoice should not be processed by LSP.

The participant schemeID 0235 is added by LSP (For example: "BillToEndpoint":"0235:1001234561").

Special Cases are encountered when the invoice transaction type code is:

- X1XXXXXX Deemed supply: 0235 / 9900000097
- XXXXXXX1 Exports (receiver not registered in PEPPOL): 0235 / 9900000099
- When the buyer is not subject to UAE e-invoicing regulations: 0235 / 9900000098

Item classifications

In the UAE e-invoicing regulation, there are multiple possible item classification and identification possibilities:

cac:**StandardItemIdentification**	entification/cac:CommodityClassification/cac:**ItemClassificatio**	cac:AdditionalItemIdentification/ccac:**ID**	cac:AdditionalItemIdentification/cac:CommodityClassification/cac:**NatureCode**
STANDARD ITEM IDENTIFICATION ("EAN code") Applicalbe to goods Not applicable to services Mandatory for Domestic Reverse Charge. **LN Source:** GTIN Code from Items (tcibd0501m000), EAN Code field	**ITEM CLASSIFICATION ("HS code") for goods** Mandatory for Domestic Reverse Charge. **LN source:** HS Code in Items general (tcibd0501m000) or Classification Scheme (Goods) from tccls0100m000 (if Item Classifications are implemented)	**ITEM CLASSIFICATION ("SAC code") for services** Service Accounting Code (SAC) for services. **LN source:** Triggered by service indicator in Exceptions by Tax Code (lpare0120m000). HS Code in Items general (tcibd0501m000) or Classification Scheme (Services) from tccls0100m000 (if Item Classifications are implemented)	**NATURE CODE ("UAE classification")** Mandatory for Domestic Reverse Charge. **LN source:** Classification Scheme (Goods) from tccls0100m000 , based on UAE Classification scheme for Reverse Charghe in UAE Parameters (lpare0100m000)

Until the official service accounting code (SAC) list is provided by the UAE tax authorities, it is possible to refer to the Indian SAC classification under GST.

More details on the logic focusing on the type of invoice line.

Scenario	**Infor LN Configuration**	**Example of outcome in cac:InvoiceLine/cac:Item:**
Goods invoice lines	GTIN Code from Items (tcibd0501m000), EAN Code field	<cac:StandardItemIdentification> <cbc:ID schemeID="0160">97iugug876</cbc:ID> </cac:StandardItemIdentification>
	HS Code in Items general (tcibd0501m000) or Classification Scheme (Goods) from tccls0100m000 (if Item Classifications are implemented)	<cac:CommodityClassification> <cbc:CommodityCode>G</cbc:CommodityCode> <cbc:ItemClassificationCode listID="HS">8413.70.10</cbc:ItemClassificationCode> </cac:CommodityClassification>

Service invoice lines	HS Code in Items general (tcibd0501m000) or Classification Scheme (Services) from tccls0100m000 (if Item Classifications are implemented) Possible service indicator in Exceptions by Tax Code (lpare0120m000)	<cac:CommodityClassification> <cbc:CommodityCode>S</cbc:CommodityCode> </cac:CommodityClassification> (…) <cac:Item> (….) <cac:AdditionalItemIdentification> <cbc:ID schemeID="SAC">9983.11</cbc:ID> </cac:AdditionalItemIdentification> (…) </cac:Item>
Mixed invoice lines	Out of scope (Infor LN creates two lines, one for goods and one for services)	
Domestic Reverse Charge Invoice	"Nature codes for Reverse charge Classification scheme" in United Arab Emirates Parameters (lpare0100m000) Ean code in general item data Classification Scheme (goods) from tccls0100m000	<cac:Item> (…) <cac:StandardItemIdentification> <cbc:ID schemeID="0160">06291041500001</cbc:ID> </cac:StandardItemIdentification> <cac:CommodityClassification> <cbc:NatureCode>DL8.48.8.2</cbc:NatureCode> <cbc:CommodityCode>G</cbc:CommodityCode> <cbc:ItemClassificationCode listID="HS">8517.13.00</cbc:ItemClassificationCode> (…)

LSP takes care of the transformation of HS codes: LSP adds the required spaces, e.g. when the provided value is '851714100000' the value will be displayed as '85 17 14 10 00 00'.

An additional item classification scheme can also be defined for reporting items in e-invoices using a dedicated commodity classification. Specifying a classification is mandatory for local reverse charge transactions.

Users have the possibility to enter the codes for services in a dedicated classification scheme, but if classification schemes are not implemented, they can use the normal HS codes (triggering the service indicator in Exceptions by Tax Code (lpare0120m000).

Reverse charge

Article 48 of the VAT Decree-Law contains specific rules relating to 'Concerned Services' and 'Concerned Goods' that are imported by a Taxable Person for Business purposes: these are subject to the reverse charge mechanism for VAT reporting. The import of Concerned Services and Concerned Goods is not subject to any e-invoicing requirements.

The reverse charge mechanism tax category for e-invoicing should only be used where the reverse charge mechanism applies to a supply of certain goods between two VAT Registrants, which is subject to the provisions contained within the VAT Decree-Law and Cabinet Decisions referenced. Where the reverse charge mechanism tax category is applied, the supplier is required to issue an Electronic Invoice

which will not include VAT and include a narrative specifying the reason for the supply being subject to the reverse charge mechanism. The goods to which the domestic reverse charge applies include:

- Electronic devices;
- Precious metals and precious stones;
- Crude or refined oil;
- Unprocessed or processed natural gas; and Pure hydrocarbons;
- Metal Scrap trading.

In this case, the sold items should include:

- GTIN Code from Items (tcibd0501m000), EAN Code field
- HS Code in Items general (tcibd0501m000) or Classification Scheme (Goods) from tccls0100m000 (if Item Classifications are implemented)
- Additional Classification Scheme (Goods) from tccls0100m000, based on UAE Classification scheme for Reverse Charge in UAE Parameters (lpare0100m000). Expected values:
    - DL8.48.8.1 Gold and Diamonds
    - DL8.48.8.2 Electronic Devices
    - DL8.48.3.1 Crude or refined oil
    - DL8.48.3.2 Unprocessed or processed natural gas
    - DL8.48.3.3 Pure hydrocarbons
      Note: The above values should be entered as numbers. The BOD logic adds "DL" and the dots, transforming, for example, "84881" into "DL8.48.8.1".

Service Indicator and HS codes

The solution also supports UAE-specific service indicator determination. The service indicator can be determined based on UAE tax code exceptions, defined in the session Exceptions by Tax Codes (lpare0120m000).

UAE Parameters

In the session United Arab Emirates Parameters (lpare0100m000), the functionality must be activated and the e-invoicing activation date must be defined.

- e-invoicing Implemented: If this checkbox is selected, the e-invoicing functionality is implemented for United Arab Emirates.
- Activation Date: The date and time when the e-invoicing functionality is implemented for United Arab Emirates localization.
- Note: This value is updated with the date on which the e-invoicing Implemented checkbox is selected.
- Nature codes for Reverse charge Classification scheme: The code of the classification scheme associated with the reverse charge invoices. It can be used for determining the Nature Code of items which are subject to RCM.

Feedback

The session Document Identifiers and Signatures (tcgen1500m000) displays feedback and eventual transmission error messages.

Supplier Invoices

LSP supports automated import of United Arab Emirates supplier e-invoices into Infor LN, session Received Purchase Invoices (tfacp1610m000). The end-to-end United Arab Emirates Vendor Inbound Invoice flow offered by LSP is based on the integration with the partner Cygnet.

Prerequisite: activation of the Vendor invoice services for the LSP accounting entity.

The process is the following:

1. LSP retrieves the inbound CII file via Cygnet Connectivity.
2. LSP then creates a Process.InboundInvoice BOD and encodes the CII file in Base64, which is stored in one of the XPath within the BOD.
3. This BOD is sent to the GEMS document flow.
4. Once received, GEMS decodes the Base64 content back into the UBL file and passes it through the document flow to transform it into a Load.SupplierInvoice BOD.
5. Finally, the file is sent to LN for loading into the customer database.

Additionally, GEMS (LCLSupplierInvoice_XC_UBL and LCLCreditNote_XC_UBL) can be used autonomously for processing the received vendor e-invoices in UBL format.

The GEMS transformation is triggered automatically after the E-invoice, retrieved, for example, from an alternative third party provider, is saved in a previously defined input folder.

Infor LN Configuration

Define the received invoices parameters in “ACP Parameters” (tfacp0100m00), General tab.

Optionally, configure the defaulting and the exceptions:

- In the Received Invoice Rules (tfacp1115m000) session, define the rules to assign the correct Tax Code, Payment Terms, Late Payment Surcharge, Unit, Item, Cost Line and Cost Line Type, Business partner.
- Initialize the business partner search sequence in the Business Partner Search sequence for Received Invoices (tfacp1116m000) session.
- Initialize the validation of received invoices in the Define Validation of Received Invoices (tfacp1117m000) session.
- Specify default transaction types and series and optionally default batch users in the Defaults for Received Invoices (tfacp1118m000) session.

Connectivity

Infor LSP provides two connectivity options: direct end-to-end connectivity through the official ASP Cygnet, or the Third Party Gateway for facilitating the connectivity through alternative third parties.

Cygnet

Infor LSP provides an end-to-end integration with the following provider(s) under, included in the list of pre-approved e-invoicing service providers in the UAE:

- Cygnet Digital IT Solutions L.L.C - www.cygnet.one
  Contact Point: Niraj Hutheesing. Email: enquiry@cygnet.one. Phone: +971527797657

For the connectivity with Cygnet:

- For e-invoices generation, create a webservice gateway for service “Tax Reporting”, direction “Outbound”, Output file Description “UAE Cygnet”, Connection type “UAE Cygnet”.
- To automatically import supplier invoices, create a webservice gateway for service “Electronic Vendor Invoices”, direction “Inbound”, Output file Description “UAE Cygnet”, Connection type “UAE Cygnet”.
- Cygnet will provide:
  - API URL
  - API Credentials
  - Username
  - Password
  - Client ID
  - Client Secret
- The API credentials provided by Cygnet need to be configured in LSP Webservices gateway session (Credential Management).

See the LSP administration guides for the ION configuration details.

Third-party connector

When the third-party connector is implemented, the generated e-invoice and e-reporting files are stored directly in a defined drop folder. No end-to-end communication is available, for the submission to the ASP after the file generation.

The file format generated by LSP is a JSON containing the information required for UAE e-invoicing. The PEPPOL UBL file is currently not being generated.

Refer to KB2321203 for ION document flow templates and GEMS scripts.

Web Services Gateway for third-party connector

1. Go to Administration > Connectivity > Web Services Gateway. On the Direction dropdown menu, select Outbound. Then, click the Add button.
2. Complete the following fields for the intended gateway:
   a. Accounting Entity ID
   b. Define a gateway for service “Tax Reporting”, direction “Outbound”, Output file Description “UAE Cygnet”.

c. Set the connection type to 'third-party connector'. Click Finish

3. Select the newly created record and Click Activate/Deactivate button. Click Yes on the confirmation pop-up. Make sure that the third-party connector's Status is Active for the specified output file description.

ION Setup for third-party connector

1. Import LCLThirdPartyConnectorOut BOD schema (on-prem only) in ION Desk > Data Catalog > Object Schemas.
2. Import LSP_ThirdPartyConnector document flow (refer KB2321203) in ION Desk > Connect > Data Flows > Import.
3. Open the imported flow ION Desk > Connect > Data Flows.
4. Configure the LSP connection point (select LSP out, click Add, select LSP app) in Data Flows > [LSP out] node.
5. Add LCLThirdPartyConnectorOut BOD (Direction: Send) in Connection Point > Documents tab.
6. Configure File Connection Point (LST_Proprietary) in Data Flows > [LST_Proprietary] node. File Activity Properties > Details > Host Name.
   It is recommended to click Test.
7. Configure Write Location (= output folder path) in File Connection Point > Documents tab.
   It is recommended to click Test on each document.
   Note: the folder must be shared with full permission.
8. Click Save
9. Return to the document flow and activate it.

Implementation responsibility

The LN–LSP–Cygnet integration has been validated by Infor, but it requires several configuration steps in LN, LSP, ION, IDM, and other components, as described in this document. Responsibility for configuring the integration lies with the customer. If additional assistance is required, please contact ICS or GDS consultants, or the Infor Partner Network. Specific questions can be directed to the Infor Support organization.

Out of scope note

The following features are not included in the initial scope. Please log an enhancement request if self-billing is required by your organization.

- Self-billing
- Agent billing/Disclosed agent invoices
- Credit card payments
- Alternative ID documents for buyers
- Production Batch numbering
- Project and Tender identifiers
- Buyer and seller special item identifications

Related documents

You can find the document in the Infor Support Portal

- Infor Localization Services User and Administration Library (Cloud and On premises) (docs.infor.com)
- United Arab Emirates e-invoicing, Infor LN solution direction (KB3645470 on the Support Portal)
- LN integration with the Infor Localization Service Platform and GEMS, interactive briefing (KB2319024 on the Support Portal)
- Infor Localization Services e-learning courses on Infor U Campus, including:
    - Introducing LSP
    - Technical Configuration: Setting up Services
    - Scheduling Timed Jobs
    - Using Output Extensibility and Supplementary Data

Disclaimer: This guide describes beta functionality and is provided for evaluation purposes. Integration testing is still in progress; therefore, functionality, configuration steps, field mappings, and technical details may change before general availability. Verify the latest product documentation before implementation.