Installing SYSPRO Point of Sale

Installation Guide | SYSPRO 8

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SYSPRO™ LearnIt

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Version SYSPRO 8.02

The Point of Sale Installation Guide provides you with the details you require in order to install Point of Sale. The topics include:

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> **Note:** This guide is aimed at SYSPRO users who have a good understanding of the Windows operating system environment, Microsoft SQL Server and Internet Information Services. This requires an understanding of technical aspects of the SYSPRO environment and is not recommended for first time users.

Introduction

Overview

SYSPRO Point of Sale (PoS) requires installing the online and offline *Point of Sale* application on individual servers to provide retail functionality, via the web, to clients. It interfaces directly into the main *SYSPRO* installation and provides for a rich and purpose-driven interface that users can use in any location, using an internet browser.

There are two main setup options, namely:

1. The **online** version, which must be installed on the same server as the main **SYSPRO** installation, provides full accessibility to all the functions provided by the **SYSPRO Point of Sale** system.
2. The **offline** version, which is installed on a server at each store location and synchronizes with the head office server at pre-configured time intervals.

Note: The offline version requires the online version to function. An online and offline instance should not be installed on the same machine. In addition, each **SYSPRO Point of Sale** company must be installed as a separate website.

Architecture

Introduction

The **SYSPRO Point of Sale Offline** architecture has been designed to ensure that critical sales functionality at store locations is available at all times. So if the line to Head Office drops, the operators will still be able to trade completely unaffected.

An important note here is that the architecture has been designed to ensure that your store can trade and access critical customer-facing functionality in the event that the lines to Head Office have gone down. It is not designed to cater for bad lines to Head Office as there are still functions that require a connection to Head Office. The architecture also pulls and pushes data from Head Office automatically and this requires decent connection speeds to Head Office.

The architecture also allows for transactions to be processed offline at trade shows etc, where there is no connection to Head Office at all. As soon as the laptop is connected to the network again, it will automatically sync and post transactions.

Do: Run offline for trade shows and connect later to sync all transactions processed.

Don't: Utilize offline architecture at a branch to cater for bad or little connection to Head Office.

There is a direct relationship between line speed and volume of transactions so it is important to consider all aspects of the architecture and connection when implementing **SYSPRO Point of Sale**. It is good practice to ensure that stores have back-ups or failover lines in place. Connection to **Head Office** should still be given high priority to ensure you have close to real-time processing from **SYSPRO Point of Sale** to **SYSPRO**.

Connection to Head Office should still be given high priority to ensure you have close to real-time processing from **SYSPRO Point of Sale** to **SYSPRO ERP**.

An overview of the **SYSPRO Point of Sale** (PoS) architecture is depicted below. As you can see, you are able to run a hybrid architecture which enables some branches running online, and others running offline. Typically, In a retail environment, the offline architecture will always be deployed regardless of line speeds and failover lines, to ensure that if the lines do drop for whatever reason, the store can still trade.
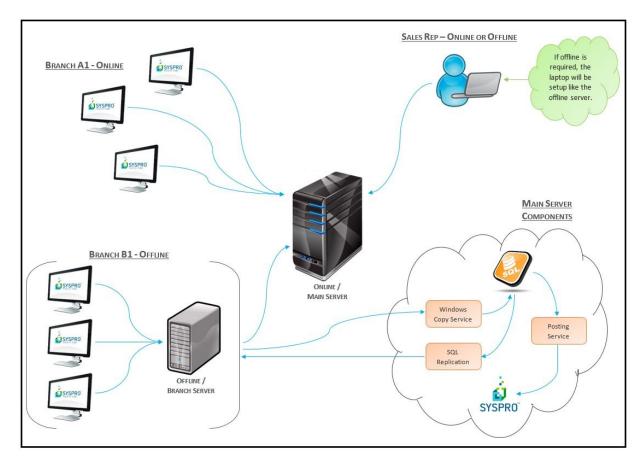
Figure 1: PoS Architecture On and Offline

Architectural Changes

- **WCF Performance**

  SYSPRO Point of Sale has been changed to leverage off the SYSPRO WCF Service for e.net. This change harnesses all the multi-threaded/scalability improvements that has gone into SYSPRO 7. Users will experience a dramatic performance improvement, especially with large volumes of transactions.

- **Install**

  The **SYSPRO Point of Sale** Install will seamlessly install all **Point of Sale** components and pre-requisites.

  The install provides for both online and offline server installations as well as allows you to install multiple versions for multiple **SYSPRO Companies**.

  Replication has been moved out of the install and into the branch setup so when creating an offline branch, you have the option to create the publications and subscriptions from within the branch setup.

  The Install will do the following:

  1. Install pre-requisites
  2. Install SYSPRO 8 e.net Communication Load Balancer
  3. Install Point of Sale components
  4. Install Point of Sale Services
  5. Install SYSPRO POS Offline Foundation (for offline branches)

- **Automatic Database Updates, Sync Service and Port Updates**

  The underlying **SYSPRO Point of Sale** architecture has been enhanced to improve real time updates and database changes seamlessly.

The architecture itself now controls all database creation and updates making it truly adaptable. Once the install has been done, the first time the application is run, it will create all the **SYSPRO Point of Sale** Databases and prompt you to setup your first branch and user.

Similarly, if any updates are required it will auto update (components and database) based on the version currently deployed or updated.

The **Sync service** has been enhanced to control all updates of the software on the main server and all branch servers. As soon as an update file is found, it will ensure that components are copied to all required servers and auto update both the database, **Point of Sale** components and **SYSPRO** components required on the offline server.

This means that port updates can be done automatically as part of the **SYSPRO** porting architecture.

- **Multi-company**

The **SYSPRO Point of Sale** posting service has been enhanced to post per company. Only a single service is installed and the service itself will control posting to multiple companies. It will post on a different thread per company meaning it still operates as a separate service but is only installed once.

Online Architecture

In the online architecture, branches are logical groupings based on operator logins. A *Point of Sale* operator must be assigned to a specific branch so that when they login, they will automatically be trading under the branch to which they have been assigned.

The operators log on to the main application server when they log in to *SYSPRO Point of Sale*. This means that if the lines to Head Office go down, they will not be able to trade until the connection has been restored.

All users from all branches connect to the main server through a browser which points to the Head Office server IP address directly for **ALL** functionality
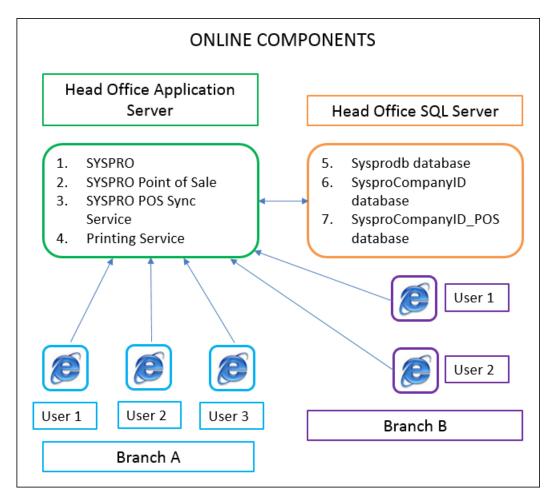
```
(e.g http://Head-office-server/SysproPOS/login.aspx).
```

Figure 2: Point of Sale Online Architecture

Head Office Server Components

1. **SYSPRO**

    This is the SYSPRO ERP software.

2. **SYSPRO Point of Sale Online**

    This is the online version of the SYSPRO Point of Sale software, including the web components required for each SYSPRO Point of Sale company to transact.

3. **SYSPRO POS Sync Service**

    This is a **Microsoft Windows** service that checks for any Point of Sale updates that may have been ported and automatically updates the software accordingly. This can be configured to run at a specific time in the day (after hours) so that the required IIS can restart without affecting trading.

4. **Printing Service**

    This service controls all the printing done from within SYSPRO Point of Sale.

5. **Copy Service**

    This is a **Microsoft Windows** service which is installed on the **Head Office** server and has a list of all branch servers that have been installed. This service continually checks each branch server for transactions that need to be copied up to the Head Office server. If it finds a transaction, it copies it from the branch server (where the Offline Foundation version of SYSPRO ERP is installed) to the Head Office server (where the complete version of SYSPRO ERP is installed) and marks it as "copied" on the branch server.

6. **Posting Service**

This is a **Microsoft Windows** service which is installed on the **Main Server** and which checks for offline transactions that have been copied from the branch server to the Main Server but not yet posted to SYSPRO ERP. The only thing this service does is post copied offline transactions to SYSPRO ERP. This service can be configured to post at defined intervals.

7. **Sysprodb**

This is the key database used for core SYSPRO. It indicates the company ID for each company.

   Note: There is only one Sysprodb per SYSPRO installation.

8. **SysproCompanyID**

This is the SYSPRO ERP database used for core SYSPRO. It contains triggers, functions, and stored procedures in the database tables which SYSPRO Point of Sale uses to access master information.

   Note: This database must exist for each SYSPRO company.

9. **SysproCompanyID_POS** This is the database which stores key SYSPRO Point of Sale information.

   Note: This database must exist for each SYSPRO Point of Sale company.

10. **SQL Replication**

When there is an offline branch installed, SQL replication must be configured on the Main Server. This pushes all relevant SYSPRO and SYSPRO POS data down to the branch. **Replication** is incremental so every time a record changes in one of the tables being replicated, it is automatically pushed to each branch (provided the branches are online).

   Note: No transactional data is replicated; only master data is replicated.

Offline Architecture

In the Offline architecture, there is an additional server required at each store location to which all users at the location log on. The architecture pushes data from the Head Office server to the branch server via standard SQL replication. Transactions are then copied to Head Office and posted into ERP SYSPRO automatically as described below.
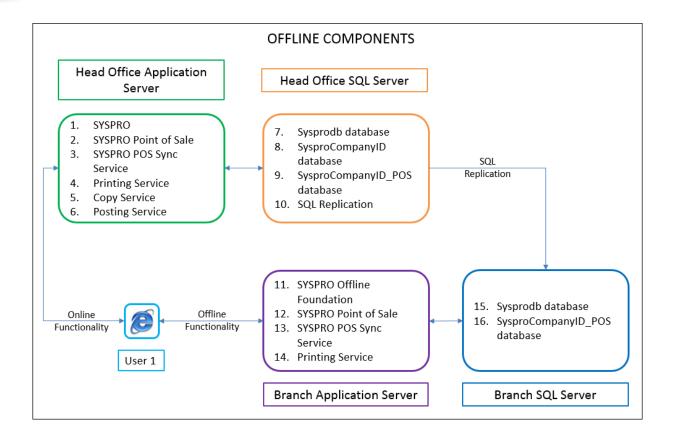
When running the Offline architecture, there is certain functionality that is configured to work offline and some functions that work only when online. This means that any functionality that is not configured with the offline architecture requires a connection to the Head Office server to work. The software detects if you are not connected to the Head Office server, and notifies you that you are offline, and indicates that you should try again later.

All users at the Offline branch connect to the branch server when accessing offline functionality and the Main Server when accessing online functionality. The menu options point to the relevant server accordingly so when accessing a menu item that runs via the offline foundation, it will look at the Offline server (e.g.http://branch-server/SysproPOS/login.aspx).

When accessing a menu item that runs via the online foundation, it points to the online server (e.g. http://head-office-server/SysproPOS/login.aspx)

   Note: The software that is installed on the Main server and the Branch server is identical; it is just the location to which it points and from which the functionality runs that changes.

Figure 3: Point of Sale Offline Architecture

OFFLINE COMPONENTS

Head Office Application Server
1. SYSPRO
2. SYSPRO Point of Sale
3. SYSPRO POS Sync Service
4. Printing Service
5. Copy Service
6. Posting Service

Head Office SQL Server
7. Sysprodb database
8. SysproCompanyID database
9. SysproCompanyID_POS database
10. SQL Replication

SQL Replication

Online Functionality

Offline Functionality

User 1

Branch Application Server
11. SYSPRO Offline Foundation
12. SYSPRO Point of Sale
13. SYSPRO POS Sync Service
14. Printing Service

Branch SQL Server
15. Sysprodb database
16. SysproCompanyID_POS database

Branch Server Components

1. **SYSPRO Offline Foundation** This is a basic version the SYSPRO ERP software which installs the base SYSPRO components required by the Offline server to run and query business objects.

2. **SYSPRO Point of Sale Offline**

   This is the offline version of the SYSPRO Point of Sale software.

3. **SYSPRO POS Sync Service**

   This is a **Microsoft Windows** service that checks for any Point of Sale updates that may have been ported and automatically updates the software accordingly. This can be configured to run at a specific time in the day (after hours) so that the required IIS can restart without affecting trading. The secondary purpose of this function in the offline environment is to check for any business object or work file changes that need to be applied to the Branch server. If it detects any updates, it copies down the relevant files needed by the SYSPRO Offline foundation. This service should only be configured to run once a day after hours or as required when SYSPRO settings have changed or updates have been made.

4. **Printing Service**

   This service controls all the printing done from within Point of Sale at the branch.

5. **Sysprodb**

   This is a partial database used for core SYSPRO which has been replicated down to the branch. It indicates the company ID for each company as well as all the master data required by PoS (customers, stock, warehouse, pricing etc.).

   📝 **Note:** There is only one Sysprodb per SYSPRO installation.

6. **SysproCompanyID_PoS**

   This is the database which stores key Point of Sale information and offline transactions at the branch.

Note: This database must exist for each SYSPRO Point of Sale company.

Offline Functionality

Functionality available in the offline architecture is listed below:

Note: All other functionality is available from the branch running on the offline architecture, but only if the branch server has a current connection to the head office server.

Store

- Point of Sale
- Account Payments
- Manage Quotes
- Credit Notes
- Exchanges

Query

- Customer Query
- Inventory Query

Finance

- Cash-up slip
- Supervisor cash-up
- End of day
- Sales Report
- Payments Report

The functionality that is available when the lines are down is the critical customer-facing sales functionally which enables the operators to take payments and service customers.

All other functionality is viewed as setup or store management functionality which can be delayed if required. So, for example, if the lines are down and stock has arrived, you won't be able to receive it in until the lines are restored; but the operators are still able to sell the stock. Most of the **Store Management** functionality is transactional by nature and the source transaction may not have originated from the branch. This means that it cannot be edited or changed at a local branch as someone may have changed it in SYSPRO or at another branch. This would lead to data integrity issues as there would be multiple sources of the truth. For this reason, the functionality is only available when you have a connection to the head office server and the transaction is actually created or maintained directly on the head office server.

Manage Orders is a more complex order creation program that allows you to do a more complex transactions in SYSPRO Point of Sale (like deposit orders, order maintenance, partial invoicing etc.). This is only available when you have a connection to the head office server for the reasons mentioned above. Operators can fall back to the Point of Sale screen to process sales if the lines are down, but none of the complex ordering functions are available in **Manage Orders** until the lines are restored.

Online vs Offline Functionality

The following table indicates which SYSPRO **Point of Sale** programs are available Online and Offline within each of the Six modules available.

PARENT/NAME	ONLINE	OFFLINE
Setup		
Branch Settings	YES	NO

PARENT/NAME	ONLINE	OFFLINE
Branch Selection	YES	NO
Branch Customers	YES	NO
Branch Licenses	YES	NO
Manage Roles	YES	NO
Manage Users	YES	NO
User Unlock at Branch	YES	NO
Access Control	YES	NO
Printing Designer	YES	NO
Manage Mappings	YES	NO
Manage Printers	YES	NO
Manage Inventory	YES	NO
Discount Setup	YES	NO
Custom Narratives	YES	NO
System Overview	YES	NO
System Settings	YES	NO
Manage Barcodes	YES	NO
Barcode Integration	YES	NO
Barcode Cross References	YES	NO
Configurable Fields	YES	NO
Product Feedback Questions Setup	YES	NO
Product Feedback Stock Code Setup	YES	NO
Store		
Point of Sale	YES	YES
Account Payments	YES	
Manage Quotes	YES	YES
Open Drawer	YES	YES
Credit Note	YES	YES
Issue Exchanges	YES	YES
Store Management		
Manage Orders	YES	NO
Re-print Invoices	YES	YES
Re-print Sales Orders	YES	NO
Petty Cash	YES	NO
Manage Credit Notes	YES	NO
Manage SCT's	YES	NO
Immediate Transfer	YES	NO
Receive GIT	YES	NO
Manage Online	YES	NO
Stock Take	YES	NO
Stock Take Capture	YES	NO
Query		
Inventory Query	YES	YES
Invoices and Payments	YES	NO
Customer Movements	YES	NO

PARENT/NAME	ONLINE	OFFLINE
Customer Query	YES	YES
Job Query	YES	NO
GIT Query	YES	NO
Contacts		
Manage Customers	YES	NO
Manage Contacts	YES	NO
Allocate Cards	YES	NO
Maintain Cards	YES	NO
Finance		
Manage Currency	YES	NO
Cash Up Slip	YES	YES
Supervisor Cash-Up	YES	YES
End of Day	YES	YES
Sales report	YES	YES
Payments Report	YES	YES

Note: When an Offline System (such as a client at an offline branch) attempts to perform online functionality such as Manage Orders - the printing will occur from the main server as well. The Main Server will have to be able to see the branch's printers in order to be able to print to there (such as permissions etc.)

The **Create SCT and GIT Receipt** programs currently cannot save locally and are only available online. The offline branch needs to be able to connect to the Online server in order to access the functionality - so the above applies to this functionality as well.

Inventory and Customer Query have certain functionalities that will only function if the client machine can connect to the main server directly. Even though the Branch server may be able to connect to the Main Server, the functionality will not work if the client itself cannot make that connection.

Services

The following services, which are installed and used both on the Head Office (Online) Server and Branch (Offline) Servers, and are critical to both the Online and Offline installations of SYSPRO Point of Sale.

- **SYSPRO Avanti Initialization Service**

  This **Windows** service is responsible for starting the **SYSPRO.exe** process on the SYSPRO Application Server, together with a number of other SYSPRO-specific functions such as accessing the file system on the application server and controlling authentication when logging into SYSPRO.

- **SYSPRO 8 Point of Sale e.net Communications Service**

  Based on **Windows Communication Foundation**, this service exposes the **SYSPRO64.DLL** library to internal and external applications that need to interact with SYSPRO (e.g. SYSPRO Espresso, Predictive Search, third party developer applications, etc). Data is retrieved from the SYSPRO database using the open e.net architecture, without compromising data integrity.

  This service replaces the **SYSPRO e.net WCF Service** (originally developed to replace SYSPRO Web Services and DCOM) and provides for load balancing functionality as well as being fault tolerant (e.g. if a channel fails, a new thread is initiated automatically to prevent the whole service from failing).

- **SYSPRO 8 Point of Sale Services**

  This service lets you synchronize master data, copy transactional data from offline branches to the main server and post transactional data that was copied from offline branches.

  It comprises the following services:

  - **SYSPRO 8 Point of Sale Synchronize Service (mandatory)**

    This is installed in both Online and Offline environments and is used to synchronize master data (i.e. it self-heals PoS Web Site components).

  - **SYSPRO 8 Point of Sale Copy Service (optional)**

    This copies transactional data from Offline branches to the Main Server.

  - **SYSPRO 8 Point of Sale Posting Service (optional)**

    This posts the transactional data that was copied from Offline branches.

Syncing SYSPRO files

Depending on the **UpdatedInterval**, the SYSPRO file syncing will execute and retrieve the latest SYSPRO files from the Main Server and proceed to copy it to the branch.

The files that are copied are depended on the results returned by the POSQRY business object. The branch will check POSQRY and gather all the file details that are currently in the directories contained in the branch SYSPRO installation; this includes:

- Filenames
- Create data
- Modified date

This list is sent to the **Sync Web Service**. The list of files received from the web service is then compared to the files on the main server. Files which do not match create and modified dates are added to a zip file which will then be streamed down to the windows service. These files will be extracted and used to update the branch's SYSPRO.

The IMPACT.INI file will not be copied down, instead a copy is made and renamed to IMPACT_POS.INI and copied down to the branch.

SYSPRO 8 Avanti Initialization Service

This **Windows** service is responsible for starting the **SYSPRO.exe** process on the SYSPRO Application Server, together with a number of other SYSPRO-specific functions such as accessing the file system on the application server and controlling authentication when logging into SYSPRO.

This service is used by: **SYSPRO Avanti**.

The default location for this service is (**Program Files** > **SYSPRO** > **SYSPRO Avanti Unitization Service**).

Prerequisites

- Microsoft .NET Framework 4.6
- SYSPRO 8 Service Upgrade Manager
- SYSPRO 8 e.net Communications Load Balancer (valid endpoint configured in System Setup)

Installation Considerations

This service is installed using the **SYSPRO Installer** as well as the **Point of Sale Installer**.

Note: This service must be installed on the same application as the SYSPRO 8 Server.

Debugging and Diagnostics

Service Config.exe file

You can debug this service by editing the associated **config** file in elevated mode (i.e. with administrator privileges). The **SYSPROInitializationHostService.exe.config** file is located in the folder to which you installed the service.

Windows Event Viewer function

You can view monitoring and troubleshooting messages about this service using the **Event Viewer** function in Windows:

(**Control Panel** > **System and Security** > **Administrative Tools** > **Event Viewer** > **Applications and Service Logs**).

This service outputs an event log to the **SYSPROAIS** file.

Windows Services function

You can start, stop, restart and configure this service using the **Services** function in Windows.

(**Control Panel** > **System and Security** > **Administrative Tools** > **Services**).

SYSPRO 8 e.net Communication Load Balancer

Based on **Windows Communication Foundation**, this service exposes the **SYSPRO64.DLL** library to internal and external applications that need to interact with SYSPRO (e.g. SYSPRO Espresso, Predictive Search, third party developer applications, etc). Data is retrieved from the SYSPRO database using the open e.net architecture, without compromising data integrity.

This service replaces the **SYSPRO e.net WCF Service** (originally developed to replace SYSPRO Web Services and DCOM) and provides for load balancing functionality as well as being fault tolerant (e.g. if a channel fails, a new thread is initiated automatically to prevent the whole service from failing).

This service is used by SYSPRO 8 and any external or third party e.net application accessing SYSPRO data although you can continue running the older **SYSPRO e.net WCF Service** alongside the new **SYSPRO 8 Communications Service**, you will have to configure a different communication port.

This service is used by:

- SYSPRO 8
- SYSPRO Avanti
- SYSPRO Server-side Reporting
- SYSPRO Web-based Product Configurator
- Executive Dashboard SYSPRO Workflow Services
- SYSPRO e.net Diagnostics
- SYSPRO Point of Sale
- SYSPRO Harmony
- SYSPRO Espresso
- SYSPRO Machine Learning

Any external or third party e.net application accessing SYSPRO data

The default location for this server is:

(**Program Files** > **SYSPRO** > **SYSPRO 8 e.net Communications Load Balancer**).

Prerequisites

- Microsoft .NET Framework 4.6
- SYSPRO 8 Server

Installation Considerations

This service is installed using the SYSPRO Installer.

Note: This service must be installed on the same application as the SYSPRO 8 Server.

Debugging and Diagnostics

Service Config.exe file

You can debug this service by editing the associated **config** file in elevated mode (i.e. with administrator privileges). The **SYSPRO.8.enet.communications.exe.config** file is located in the folder to which you installed the service.

Windows Event Viewer function

You can view monitoring and troubleshooting messages about this service using the **Event Viewer** function in Windows:

(**Control Panel** > **System and Security Administrative Tools** > **Event Viewer** > **Applications and Service Logs**).

This service outputs an event log to the **SYSPROAECS** file.

Windows Services function

You can start, stop, restart and configure this service using the **Services** function in Windows.

(**Control Panel** > **System and Security Administrative Tools** > **Services**).

Referencing

Configuration file

Note: You should only edit this file for debugging purposes. Don't use this as a method to update values for the service. This is because a wizard installation updates the system registry, which is what is read when using the service. A fresh installation overwrites these values, which may cause problems when you next run the service.

Key	Description
baseaddress	This is the template base address at which all endpoints are hosted.
portNetTcp	This is the port at which the net.tcp binding is hosted.
portBasicHttp	This is the port at which the basic binding is hosted.
portWsHttp	This is the port at which the WS binding is hosted.
portRestHttp	This is the port at which the REST binding is hosted.
portNetPipe	This is the name of the named pipe endpoint.
InstanceContextMode	This value indicates when new service objects are created. It specifies the number of service instances available for handling calls that are contained in incoming messages.
ConcurrencyMode	This indicates whether a service supports one thread, multiple threads, or re-entrant calls. It specifies whether a service class supports single-threaded or multi-threaded modes of operation.
AddressFilterMode	This is used by the dispatcher to route incoming messages to the correct endpoint. It specifies the type of match semantics used by the dispatcher to route incoming messages to the correct endpoint.
backhaulPingTimeout	
workerPingTimeout	This is an integer specifying milliseconds. This controls locked worker detection. The value specifies how long to wait for a response from the SYSPRO runtime. If a ping response exceeds this time, the worker is considered locked and marked for termination.
workerPingInterval	This is an integer that lets the supervisor test the worker every x calls and determine if the worker is healthy on every pool re-balance. • Zero value = detection only on pool re-balance. • Greater than Zero value = detection on every x calls. • Lower values -> Greater reliability. Higher values -> Higher performance.
minWorkers	This is an integer that specifies the minimum number of worker processes. Zero workers will cause all calls to execute internally, with no redundancy.
schedulerInterval	This is an integer specifying seconds that specifies how often the scheduler checks the recycling thresholds. Recycling is a cooperative process, and workers will only be recycled when they fault or have no jobs in progress. 📝 **Note:** Setting this too low will reduce performance.

schedulingAlgorithm	This determines how the scheduler chooses a worker.
	
	• **RoundRobin** - a worker is chosen in round-robin fashion.
	
	   This is better for high workloads with mostly short-lived transactions.
	
	• **BalancedWorkload** - a worker is chosen according to the jobs in progress, where the worker with the fewest jobs is considered most favorable.
	
	   This is better for low workloads with mostly long-lived transactions.

recyclingTimes	This is a comma separated list (hh:mm) and defines fixed times at which workers are recycled.
recyclingInterval	This is a single value (hh:mm) and defines a fixed interval at which workers are recycled.
recyclingRequests	This is an integer that recycles a worker after it has served a certain number of requests.
recyclingPagedMemory, recyclingVirtualMemory, recyclingWorkingSet	This recycles a worker if the memory usage goes over this threshold (n{B|KB|MB|GB}) Although all these settings are available, only the working set value is close to what Windows exposes in the Task Manager. The other values may be useful in certain cases, but are harder to monitor.
recyclingWatchFolders	This is a pipe-delimited list of folders that recycles workers when a folder us modified.

Point of Sale Services

This service lets you synchronize master data, copy transactional data from offline branches to the main server and post transactional data that was copied from offline branches.

It comprises the following services:

- **SYSPRO 8 Point of Sale Synchronize Service (mandatory)**

  This is installed in both Online and Offline environments and is used to synchronize master data (i.e. it self-heals POS Web Site components).

- **SYSPRO 8 Point of Sale Copy Service (optional)**

  This copies transactional data from Offline branches to the Main Server.

- **SYSPRO 8 Point of Sale Posting Service (optional)**

  This posts the transactional data that was copied from Offline branches.

This service is used by **SYSPRO Point of Sale**.

Installation Considerations

You install the **Point of Sale Services** using the *SYSPRO 8 Point of Sale* autorun. This is accessed via the SYSPRO installer found in the **SYSPRO Deployment folder**

> **Note:** It is recommended you restart the service to release any e.net business objects which may be held by the service. Reinstalling a service is typically only required if an updated and/or improved version of the service is released.

During the installation you will be required to configure settings for the service.

Installation field	Description
Local SYSPRO WCF Service Endpoint	This is the TCP-based network protocol (net.tcp://) that points to your SYSPRO e.net WCF Service installation (e.g. net.tcp://localhost:30000/SYSPROWCFService).
Local SYSPRO Application Server Instance	This indicates the default instance of SYSPRO with which the service will communicate. SYSPRO instances are reflected in your Windows Registry to identify the Base folder of your SYSPRO install where the necessary .dll and .exe files are located.
Online Web Site URL	

Debugging and Diagnostics

You can troubleshoot errors or failures when using this service by editing the associated config file in elevated mode (i.e. with administrator privileges)

These files are located in the folder to which you installed the service and defaults to: C:\Program Files (x86)\SYSPRO\SYSPRO Point of Sale Services.)

> **Note:** You should only edit this file for debugging purposes. Don't use this as a method to update values for the service. The reason for this is that a wizard installation updates the system registry, which is what is read when using the service. A fresh installation will overwrite these values, which may cause problems when you next run the service.

Service Config.exe.file

You can debug this service by editing the associated config file in elevated mode (i.e. with administrator privileges).

The files are located in the folder to which you installed the service.

Windows Event Viewer function

You can view monitoring and troubleshooting messages about this service using the Event Viewer function in Windows:

(**Control Panel** > **System and Security Administrative Tools** > **Event Viewer** > **Applications and Service Logs**)

Windows Services function

You can start, stop, restart and configure this service using the Services function in Windows:

(**Control Panel** > **System and Security Administrative Tools** > **Services**).

Referencing

SYSPROServerSyncService.exe.config

Application settings	Description
UpdateTime	21:00
UpdateInterval	86400000
EnableDebuggingToLog	True/False
DebugLog	C:\Program Files (x86)\SYSPRO\SYSPRO 8 Point of Sale Services\DebugLog.txt
InstanceId	This indicates the default instance of SYSPRO with which the service will communicate. SYSPRO instances are reflected in your Windows Registry to identify the \Base folder of your SYSPRO install where the necessary .dll and .exe files are located.
BaseLoadBalancerAddress	This is the TCP-based network protocol (net.tcp://) that points to your SYSPRO 8 e.net Communications Load Balancer installation.
CompanyCode	This is the SYSPRO Company Directory
InstallDir	The is the directory that you installed the software.
IsOnline	True/False.
PosUrl	/SYSPRO8POS_/

SysproPosCopyService.exe.config

Application settings	Description
BaseLoadBalancerAddress	This is the TCP-based network protocol (net.tcp://) that points to your SYSPRO 8 e.net Communications Load Balancer installation.
InstanceId	This indicates the default instance of SYSPRO with which the service will communicate. SYSPRO instances are reflected in your Windows Registry to identify the \Base folder of your SYSPRO install where the necessary .dll and .exe files are located.

SYSPROPosPostService.exe.config

Field	Description
LogTracingDetailToApplication Log	True/False.
LogTracingDetailToTextFile	True/False. C:\Program Files(x86)\SYSPRO\SYSPRO 8 Point of Sale Services\TracingLog.txt
TransactionPostingInterval	10000
EndOfDayPostingInterval	600000
InvoiceAndPaymentBatchPostingInterval	120000

Field	Description
BaseLoadBalancerAddress	This is the TCP-based network protocol (net.tcp://) that points to your SYSPRO 8 e.net Communications Load Balancer installation.
InstanceId	This indicates the default instance of SYSPRO with which the service will communicate. SYSPRO instances are reflected in your Windows Registry to identify the \Base folder of your SYSPRO install where the necessary .dll and .exe files are located.

SYSPRO Point of Sale Utility Service

This service is used for device based printing and needs to be installed on all client machines that require access to *SYSPRO Point of Sale*.

Installation Considerations

During the installation you will be required to configure settings for the service. Once you have installed the service, you must manually update the <SysproPosClientSideServiceUrl> element in the SystemConfig.xml file.

For example: If you are using port number 30210 (default for SYSPRO 8). The entry will be as follows:

```
<SysproPosClientSideServiceUrl              >http://localhost:30210
</SysproPosClientSideServiceUrl>
```

Installation Field	Description	
Service Port Number	**Port Numbers**	**Description**
	Below 1023	Reserved for system ports.
	From 1024 to 49151	**Recommended user ports.** Once a port number is assigned, avoid reusing that number for another service as this will cause a conflict.
	From 49152 to 65535	Dynamic ports.

Debugging and Diagnostics

You can troubleshoot errors or failures when using this service by editing the associated config file in elevated mode (i.e. with administrator privileges). The SYSPROPOSUtilityService.exe.config file is located in the folder to which you installed the service and defaults to: **C:\Program Files (x86)\SYSPRO\SYSPRO Point of Sale Utility Service**.

Note: You should only edit this file for debugging purposes. Don't use this as a method to update values for the service. The reason for this is that a wizard installation updates the system registry, which is what is read when using the service. A fresh installation will overwrite these values, which may cause problems when you next run the service.

- **Service Config.exe file**

  You can debug this service by editing associated config file in elevated mode (i.e. with administrator privileges).

- **Windows Event Viewer**

  You can view monitoring and troubleshooting messages about this service using the **Event Viewer** function in **Windows**.

  (Control Panel > System and Security Administrative Tools > Event Viewer > Application and Service Logs)

- **Windows Services Function**

  You can start, stop, restart and configure this service using the **Services** function in **Windows**:

(Control Panel > System and Security Administrative Tools > Services)

Referencing

SYSPROPOSUtilityService.exe

Application settings	Description
WebApiUrl	http://localhost:10281/

Replication

The replication setup is required to distribute the data down to all the Offline branches. Any changes happening at Head Office will be replicated down to the branches so that the branches are kept up to date with stock levels and customer balances etc.. The type of replication chosen is transactional replication so that the updates are replicated down to the branches as soon as they happen and this ensures that the branch data is as up-to-date as the internet connection allows for.

Only **setup data** is replicated which means that you will centrally administer all your setup including Branch and User setup and this information will be replicated to all branches so that consistent setup is maintained across all branches.

There are 3 parts to replication:

1. **Distributor and distribution**

   The first part of the replication setup is the distribution.

   This is where you configure the distributor and distribution database and the accounts involved. This defines which server acts as the distributor and which database will be utilized as the distribution database.

2. **Publisher and publication**

   The second part of replication setup is to define the publisher and which distributor it needs to use. The publisher is the server that will publish a database and/or other Microsoft SQL Server items known as articles. During publisher and publication setup you specify which articles you want published. You will also specify which distributor will be used by the publisher to send it's publications.

3. **Subscriber**

   The third part of the setup is the subscriber. This is where you specify the server that will receive the publications from the distributor and how this subscription will be handled by these two servers.

Hardware and Software Prerequisites

Hardware Requirements

Hardware requirements:

- Intel Xeon E3 3.2GHz / Core i5 3.2 GHz or higher processor (Server standard processor and ram according to SYSPRO requirements.)
- 16 GB of RAM

Client Machine (Recommended)

Windows

- Windows 7
- An installation of Microsoft Silverlight (version 4.1.10329.0 or later) only works with Internet Explorer
- Avanti works with Chrome.
- Screen Resolution: minimum of 1024 x 768
- Internet Explorer 9 (Browsers must be in 32-bit mode)
- 1.6 GHz or higher processor
- RAM according to SYSPRO's minimum specifications

Macintosh OS 10.4/10.5 Intel (Intel-based)

- Intel Core Duo 1.83 GHz or higher processor
- 512MB of RAM

Compatible operating systems and browsers

Operating System	IE9	IE8	IE7	IE6	Firefox 3.6+	Safari 4+	Chrome 12+
Windows Vista	Yes	Yes	Yes	No	Yes	No	Yes
Windows 7	Yes	Yes	No	No	Yes	No	Yes
Windows Server 2008	Yes	Yes	Yes	No	Yes	No	Yes
Windows Server 2008 R2	Yes	Yes	No	No	No	No	Yes
Windows Server 2003, Windows XP SP2, SP3	No	Yes	Yes	Yes	Yes	No	Yes
Macintosh OS 10.5.7+ (Intel-based)	No	No	No	No	Yes	Yes	No

Note: The **SYSPRO Point of Sale** application does **not** support **Windows Terminal** client machines and a minimum resolution of 1024 x 768 is recommended.

System Requirements

There are three platforms required in order to run **SYSPRO Point of Sale**:

1. Main Server -> running Windows Server and SQL Server
2. Branch Server -> running Windows Server and SQL Server Edition
3. Client Machine -> running Windows 7 or Macintosh OS

Other important system restrictions and recommendations to consider:

1. SYSPRO Point of Sale will not run over Terminal Server
2. Laser Printers should be used for printing till slips
3. SYSPRO Point of Sale does not work with older versions of Internet Explorer

Minimum requirements for touch screen tills

Screen resolution = 1024 x 768

Operating system = Windows 7 with Internet Explorer 9 (IE9)

Below are the minimum requirements that are provided as a guideline.

Please note the servers will not only be running the SYSPRO Point of Sale, but also Windows, Internet Browser, IIS and multiple other applications. Therefore, this will affect performance.

Ensure that each of the following is installed and adhered to on each of the respective servers, prior to the SYSPRO Point of Sale implementation.

System Requirements

Prerequisites	Installation Notes & Considerations
	Windows Server 2012 creates user profiles for each IIS application pool (e.g. when you change the decimal separator to a "." for en-ZA, the change is only applied to the profile into which you are logged). You can resolve this by changing it against the user profile that was created for the application pool.
Windows Server 2008 R2	
Microsoft SQL Server 2008 R2 Enterprise or Standard version	• Ensure that Replication and Agent are installed. • The SYSPRO Point of Sale database must use the same Microsoft SQL collation as the SYSPRO database. • When installing the Express version for the branches, the **AUTOCLOSE** option for the databases must be false, otherwise it will close if it is not active and the application will crash. • Enable SQL network communications (typically on port 1433). This involves changing the firewall settings against online and offline branches. • Ensure that the relevant client protocols are enabled against your SQL Server's configuration (i.e. TCP/IP or Named Pipes). • Set Max Text Replication Size to 2147483647 (SQL Server Properties > Advanced)
Microsoft .NET Framework 4.5	If you are running Windows 8 and above and/or Windows Server 2012 and above, you will need to enable HTTP Activation for WCF services. From the Control Panel > Programs > Programs and Features > Turn Windows features on or off > Microsoft .NET Framework 4.5, enable the following options: • .NET Framework 4.5 Advanced Services • WCF Services • HTTP Activation If you are not running on one of these versions, you only need to install .NET Framework 4.5.
IIS7	From the (**Control Panel** > **Programs** > **Programs and Features** > **Turn Windows features on or off** > **Internet Information Services**) enable the following options: • **Web Management Tools**

Prerequisites	Installation Notes & Considerations
	- IIS 6 Management Compatibility - IIS 6 WMI Compatibility - IIS Metabase and IIS 6 configuration compatibility - IIS Management Console **World Wide Web Services** - Application Development Features .NET Extensibility - ASP.NET - ISAPI Extensions - ISAPI Filters - Common HTTP Features - Default Document - Directory Browsing - HTTP Errors - Static Content - Health and Diagnostics - HTTP Logging - Request Monitor - Performance Features - Static Content Compression - Security - Request Filtering
Microsoft Silverlight (version 4.1.10329.0 or later)	If you are running Windows 8 and above and/or Windows Server 2012 and above, you will need to enable HTTP Activation for WCF services
Adobe Acrobat Reader	

Internet Requirements

Online configuration

For a purely online configuration, where the main server is hosted off-site, a fast, low latency and consistent Internet connection is require between the client and the server.

Note: There will be a lower transfer of data since only the required data will be retrieved and communicated to the main server. However speed, latency and consistency will have a considerable impact on the user experience

Offline-Online configuration

For an offline - online configuration, the main server will periodically communicate with the offline server and requires a fast internet connection between the servers. This is to facilitate the main server updating the offline server through data replication (which could be substantial), and for the offline server to copy transactions to the main server.

The connection between the servers does not need to be consistent, but would be determined by how up-to-date the data needs to be.

Note: There will be more bulk transfer between th servers, but would allow the users to void connecting to the main server for the majority of the functionality by using the intermediary offline server.

SYSPRO Setup Requirements

Required Connection Details

The following connection details need to be readily available prior and during the online and offline installations.

Remote connection details such as:

1. SYSPRO login details
2. Server username & password (for SQL and SYSPRO application server)
3. Team Viewer details for both
4. Microsoft SQL login details
5. Administrative access.

Prerequisites for Installation

- Set your SYSPRO authentication to **Microsoft SQL Server Authentication** - this applies to your SQL company, your SYSPRO operators.
- Add the POS license to your company registration - this should be the same license used to install the branch/offline server. Ensure that the __POS operator has been created. This should be done automatically when you import the POS license.
- Ensure that the Reserving stock required option is disabled in SYSPRO. The option is located on the Details tab of the Sales Order Setup program.
- Configure Credit note tax to avoid VAT duplication. Set the Default sales tax code for credit notes option to none ().
- Select the Use tax code from stock item or service charge for credit notes option ()

1. **Set authentication to use Microsoft SQL Server**

   This applies to your SQL company, your SYSPRO operators and your ODBC data source.

2. **Disable stock reservations**

   The Reserving stock required option is located on the Details tab of the Sales Order Setup program.

3. **Add the PoS license to your company registration**

   This should be the same license used to install the branch/offline server.

   Ensure that the __POS operator has been created - this should be done automatically when you import the PoS license.

4. **Configure Credit note tax to avoid VAT duplication:**

   - Set the Default sales tax code for Credit notes option to none.

     This option is located in the Setup Options program, under Tax > Company Tax Options.

   - Select the Use tax code from stock item or service charge for credit notes option.

     This option is located in the Setup Options program, under Tax > Sales Orders options

Integration with SYSPRO ERP

SYSPRO Point of Sale integrates with **SYSPRO ERP** modules, please take note of the following:

Mandatory SYSPRO ERP modules

- **Accounts Receivable**

  Customer information is used in Point of Sale sales orders.

- **Sales Orders**

  Sales are recorded in sales orders.

- **Inventory**

  Provides stock code information, availability and price.

- **Cash Book**

  Handles the transactional bank to which end of day processing amounts will be posted.

- **General Ledger**

  Defines the ledger codes to which end of day processing amounts will be posted.

Recommended SYSPRO ERP modules

- **Lot Traceability**

  Lot traceable stock items can be entered in counter sales.

- **Trade Promotions**

  Promotions are currently available and Pricing will follow.

Licensing

Software licence

The software that runs at a branch is referred to as the **SYSPRO Offline Foundation**; this is a 'lite' version of core SYSPRO.

Microsoft SQL Server licensing

You need to license the full **Microsoft SQL Server** product for the main head office server, as this is the product that provides the functionality to replicate data to branches.

In order to keep the branch costs down, the free **Microsoft SQL Server Express** product should be installed at branches.

User licenses

Licensing users for **SYSPRO Point of Sale** is different to core SYSPRO as **SYSPRO Point of Sale** licensing allows for concurrent users per Point of Sale branch.

For example:

Point of Sale user licenses = 10

Branches = 3

Licenses must be allocated to each branch first, say Branch 10 = 3 licences, Branch20 = 5 licenses, and Branch 30 = 2 licenses.

Concurrency is then controlled by branch according to what has been allocated.

In this example no more then 3 users will be able to log into branch 10.

You can change this allocation at any stage providing that the total number of Point of Sale users licensed in SYSPRO is not exceeded.

As Point of Sale users are separate entities from SYSPRO Users, you can, for example, have 10 SYSPRO user and 500 SYSPRO Point of Sale users. However, you can link a Point of Sale user to an existing

SYSPRO user, for example, when the Point of Sale operator has functions that are also performed in SYSPRO.

When creating a Point of Sale user, the system automatically generates a SYSPRO user for auditing purposes, which are flagged as Point of Sale only (i.e. the SYSPRO operator that is generated cannot be used to login to SYSPRO).

> **Note:** When Point of Sale generates an operator in SYSPRO, it copies the _POS operator. Therefore it is recommended that you ensure the correct access, Microsoft SQL passwords etc, is configured for this user.

Stand-alone option

SYSPRO Point of Sale is developed specifically to run off SYSPRO ERP, therefore a stand-alone option is NOT available.

However, you can buy a single SYSPRO ERP User license (with the modules required for Point of Sale) and as many Point of Sale user licenses as required. SYSPRO would then be in place in order to power the application.

SYSPRO e.net Solutions licensing with SYSPRO Point of Sale

Neither the e.net system manager nor any e.net business objects need to be purchased for SYSPRO Point of Sale - all the required e.net functionality is bundled into the module. Therefore you do not have to license SYSPRO e.net Solutions in order to use SYSPRO Point of Sale.

However, if any third party application needs to interface with SYSPRO, a SYSPRO e.net Solutions license will be required.

Although *Point of Sale* does not need to be licensed for e.net Solutions in any way, there is still access against an operator group that can cause permission issues if the operator does not have access to the business object being used in Point of Sale.

Therefore it is recommended that you create an operator group **POS** and then assign the **_POS** operator (as well as all existing POS operators) to this group. In addition to this, please ensure that against this operator group you provide access to all the e.net Solutions business object. This will avoid potential access problems when new features (which use new business objects) are added to Point of Sale.

Components installed

The following components are included:

Online Installation

Component	2019 R2	2019 R1	2018 R2
Microsoft .NET Framework 4.5	√	√	√
SYSPRO 8 Avanti Initialization Service	√		
SYSPRO 8 Point of Sale e.net Communication Service	√	√	√
SYSPRO Point of Sale Online	√	√	√
SYSPRO 8 Point of Sale Services	√	√	√

Offline Installation

Component	2019 R2	2019 R1	2018 R2
Microsoft .NET Framework 4.5	√	√	√
SYSPRO 8 Runtime	√	√	
SYSPRO 8 Avanti Initialization Service	√		
SYSPRO 8 Point of Sale Offline Foundation	√	√	√
SYSPRO 8 Point of Sale e.net Communication Service	√	√	√
SYSPRO 8 Point of Sale	√	√	√
SYSPRO 8 Point of Sale Services	√	√	√
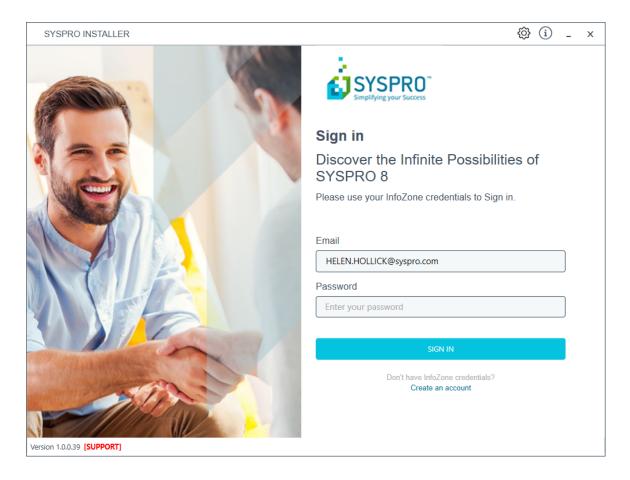
Installation Online

How to download the SYSPRO Point of Sale Autorun

The following steps describe how to download the SYSPRO Point of Sale installation autorun.

1. Run the SYSPRO Installer exe from the **SYSPRO Deployment folder**.

    The *SYSPRO Installer Login* window is displayed.
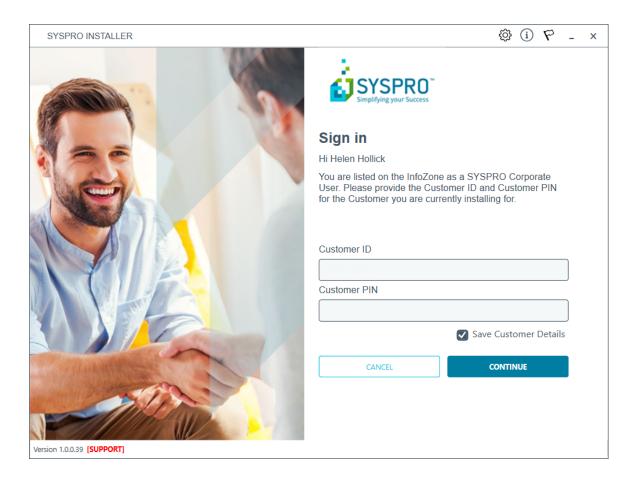
2. Once a connection is made to the **SYSPRO Deployment Service**, you need to login using your **InfoZone** credentials. A valid InfoZone account is required to continue.

    Enable the **Save Customer Details** checkbox option if you want the app to save your **Customer Code** and **Customer PIN** when logging in.

    If you are not listed as a customer on the InfoZone (i.e. you are a Partner or Super-user) an additional screen is displayed for you to enter the relevant customer code for the customer you want to install.

    The *SYSPRO Installer Sign in* window is displayed.
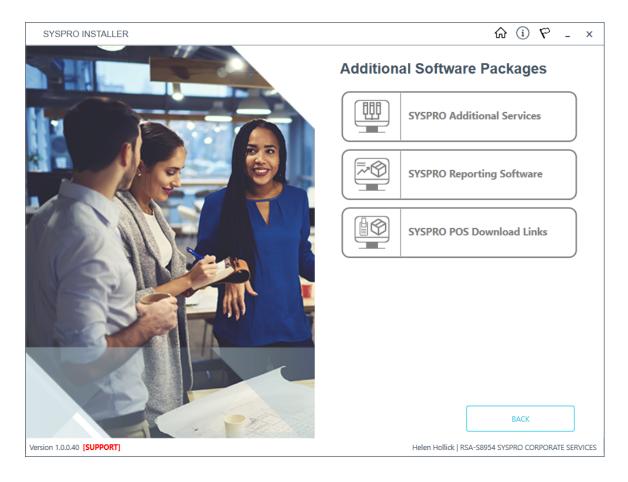
The **Customer ID** defaults to the customer code defined within your InfoZone profile, and must match the SYSPRO account you are installing.
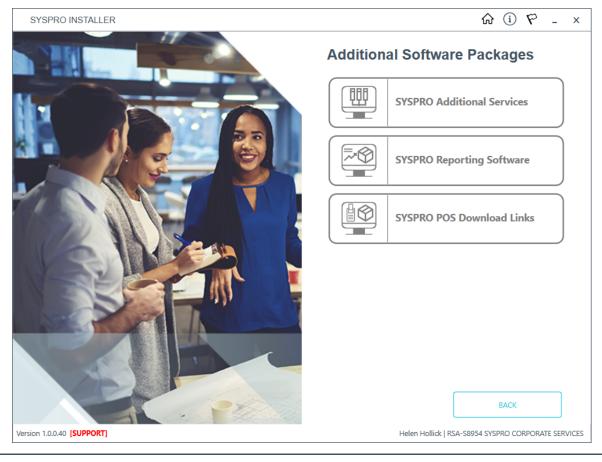
The **Customer PIN** is the 6-digit code included in the email you received that contained your SYSPRO 8 license.

You can verify your Customer ID and PIN against the **CustomerId** and **CustomerPin** elements of the license XML file.

3. Select **CONTINUE**.
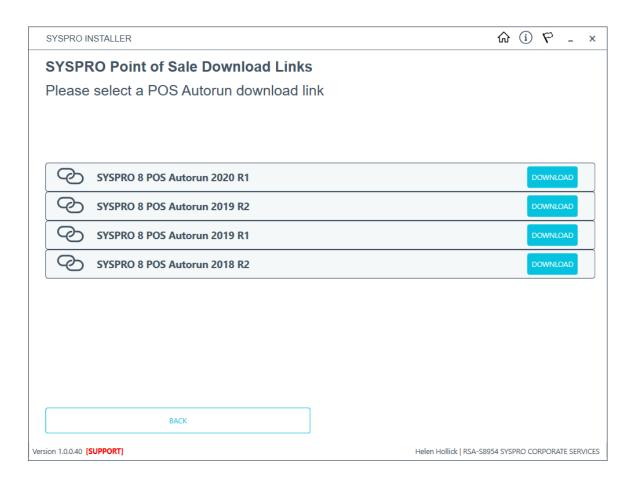
4. From the **SYSPRO Installer** home screen select **SYSPRO Additional Software**.

    The ***SYSPRO Additional Packages*** window is displayed.

The *Additional Software Packages* window provides you with a list of additional software available to install from the SYSPRO Installer application.

5.   Select **SYSPRO POS Download Links**.

The *SYSPRO Point of Sale Download link* window is displayed.

The installation files are stored on the **Deployment Share** in the syspro-additional-software folder.

6.   Select the **Download** button from the applicable version that you want to install.

The application then downloads the **Autorun ISO** to your local **Deployment Share** folder under the release subfolder.

7.   Once the download has completed, a message is displayed confirming the folder location.

8.   Select **OK**.

Installing SYSPRO Point of Sale

The following steps describe how to install SYSPRO Point of Sale at the main site, online.

⚠ You need to have installed:

- Microsoft .NET Framework 4.5
- SYSPRO 8 e.net Communications Load Balancer
- SYSPRO 8 2019 R2 or higher
- SYSPRO Avanti Initialization Service

1.   Run the **SYSPRO Point of Sale** autorun.exe program.

The **Welcome, Select an installation type** window is displayed.

2. Select **Online Installation**.

The **SYSPRO 8 Point of Sale Online** window is displayed.

Note: Components that need to be installed will have an install status of **Pending**. If all of the components have been installed previously - the **Installed** status will display and you will have the option to install another instance of **Point of Sale** for a different **SYSPRO company**.
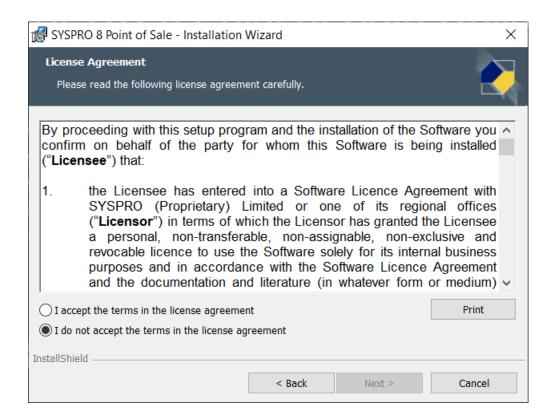
3. Select **Install**.

   The *Welcome to the Installation Wizard for SYSPRO 8 Point of Sale* window is displayed.
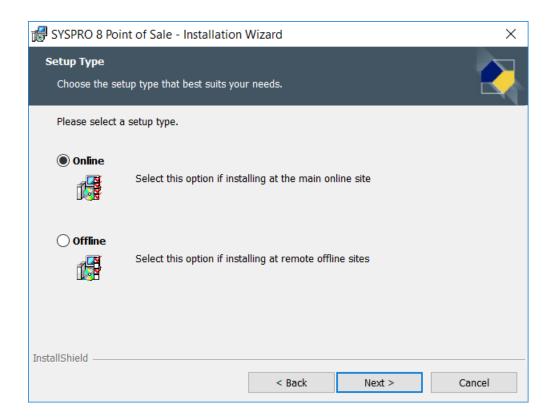
4. Select **Next >** to continue.

   The *License Agreement* window is displayed.

5. Accept the terms of the agreement.
   a) Read/Print the license agreement.
   b) Select **I accept the terms in the license agreement**.
   c) Select **Next >**.
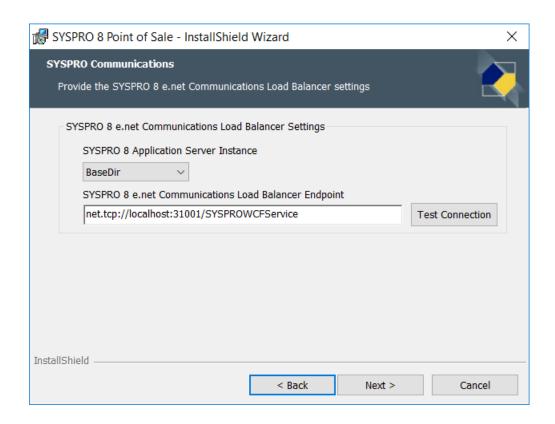
The *Setup Type* window is displayed.

6. Select **Online** and then **Next >** to continue.

    The *SYSPRO Communications* window is displayed.
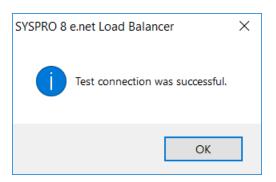
7. Provide the **SYSPRO 8 e.net Communications Load Balancer** settings.

    a) Select the base directory for **SYSPRO 8 Application Server Instance**.

For training purposes accept the default of BaseDir.
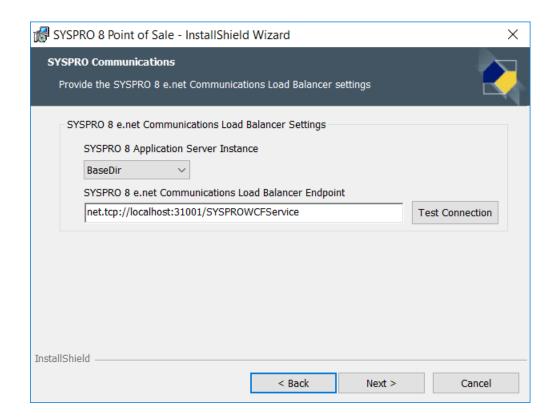
b) Enter the URL for the **SYSPRO 8 e.net Communications Load Balancer Endpoint**.

Accept the default entry of **net.tcp://localhost:31001/SYSPROWCService**.

c) Select **Test Connection**.

The **SYSPRO 8 e.net Load Balancer** window is displayed showing whether or not the test connection was successful.
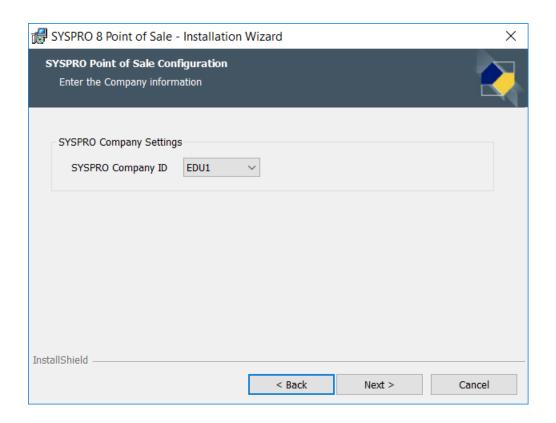
> **Note:** If the test connection is not successful then you will need to address any **SYSPRO e.net Communications Load Balancer Settings** problems before continuing,

d) Select **OK** to take you back to the **SYSPRO Communications** window.

The **SYSPRO Communications** window is displayed.

e) Select **Next >** to continue.
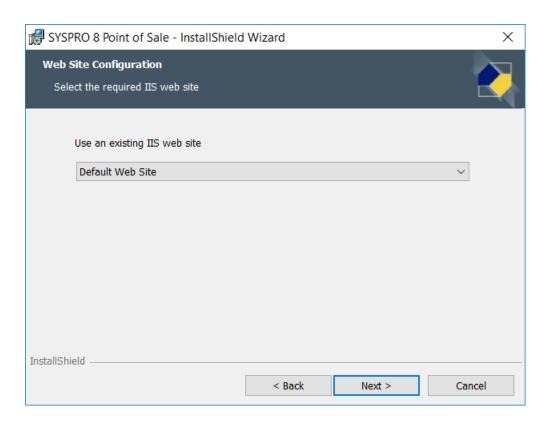
The **SYSPRO Point of Sale Configuration** window is displayed.

---

8. Select your **SYSPRO Company ID** from the drop down list and then **Next >** to continue.
   For training purposes accept the default SYSPRO Company ID (EDU1).
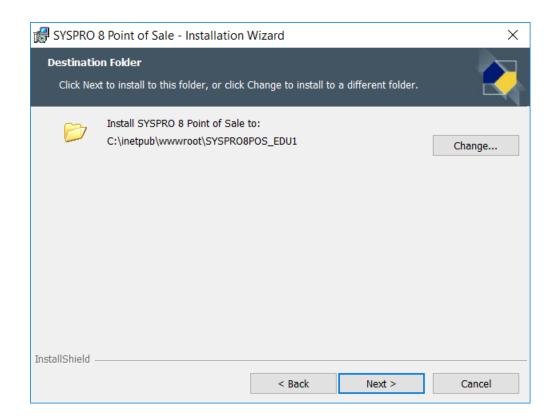
   The *Web Site Configuration* window is displayed.
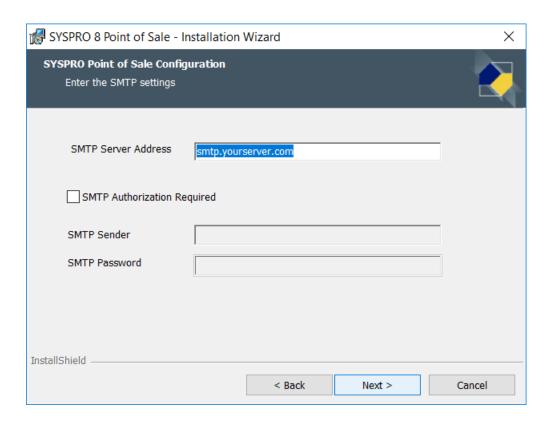
9. Select the required IIS Web Site and then **Next >** to continue.
   Accept **Default Web Site**.

   The *Destination Folder* window is displayed.

10. Accept the default **Destination Folder** or **Change...** to amend the path and then **Next >** to continue.

    The **SYSPRO Point of Sale Configuration - SMTP settings** window is displayed.
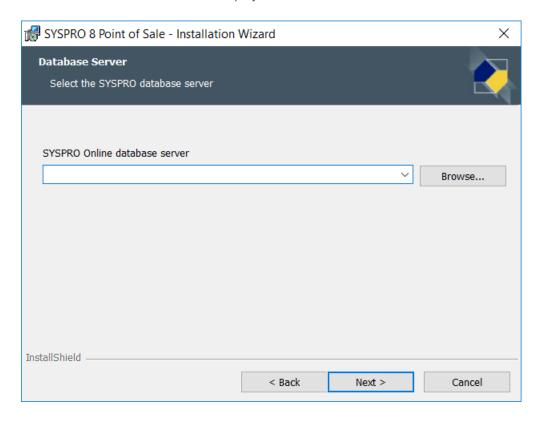
11. Follow the steps below if you are going to connect SMTP.

    The **Simple Mail Transfer Protocol (SMTP)** is a communication protocol for electronic mail transmission.

---

a) Enter a **SMTP Server Address**.
b) If authorization is required, select **SMTP Authorization Required**.
c) Enter the **SMTP Sender**.
d) Enter the **SMTP Password**.
e) Select **Next >** to continue.

For training purposes leave these fields blank and select **Next >** to continue.

The *Database Server* window is displayed.

12. Enter the **SYSPRO database server**.

You can also select **Browse** to perform a search for the server.

a) Select a **SYSPRO Online database server** from the pick list or enter a server name.

Select (local).

b) Select **Next >** to continue.

The *Ready to Install the Program* window is displayed.

13. To begin the installation select **Install**.

    If you want to review or change any of your installation settings, click **< Back**. Select **Cancel** to exit the wizard.

    The ***Installation Wizard Completed*** window is displayed.

    The **Installation Wizard** has successfully installed **SYSPRO Point of Sale** Online.

14. Select **Finish** to exit the window.

If not performed earlier, you are now ready to install the **SYSPRO Point of Sale Services**. Follow the task **Installing the SYSPRO Point of Sale Services**.

Installing SYSPRO Point of Sale Services

The following steps describe how to install Services for Point of Sale.

⚠ You need to have installed:

- Microsoft .NET Framework 4.5
- SYSPRO Avanti Initialization Services
- SYSPRO 8 e.net Communications Load Balancer
- SYSPRO 8
- SYSPRO 8 Point of Sale Online

1. Run the **SYSPRO Point of Sale** autorun.exe program.

    The **Welcome, Select an installation type** window is displayed.

2. Select **Online Installation**.

    The **SYSPRO 8 Point of Sale Online** window is displayed.

3. Select **SYSPRO 8 Point of Sale Services** and then **Install**.
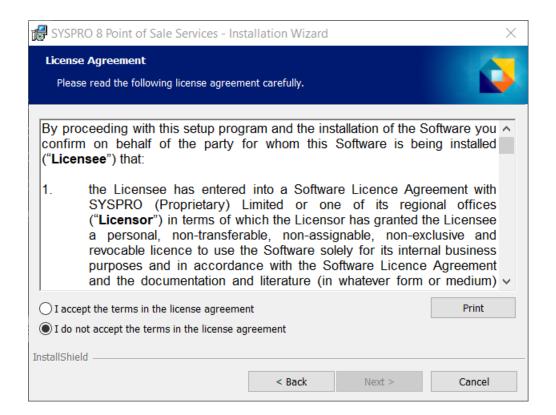
    If the **SYSPRO Point of Sales Services** have not previously been installed and you are running the **SYSPRO 8 Point of Sale Online** install, the following window will automatically be displayed after the **Online install** is complete. Refer to the **Installing SYSPRO Point of Sale Online** task

    The **Welcome to the installation Wizard for SYSPRO 8 Point of Sale Services** window is displayed.


4. Select **Next >** to continue.

   The **License Agreement** window is displayed.

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5. Accept the terms of the agreement.
   a) Read/Print the license agreement.
   b) Select **I accept the terms in the license agreement**.
   c) Select **Next >**.
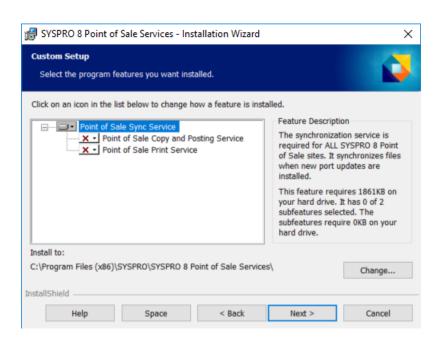
   The **Custom Setup** window is displayed.
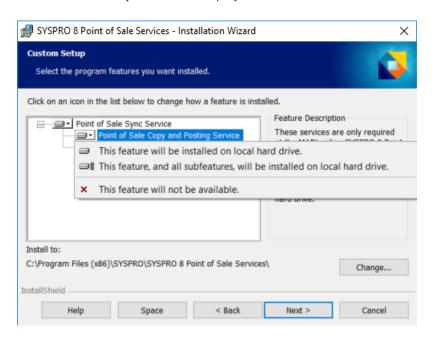
6. Select where you want to install the **Point of Sale Sync Services**. There are three services, the **Point of Sale Copy and Posting Service** and the **Point of Sale Print Service**.

   The **Point of Sale Copy and Posting** service is actually two different services i.e. **Point of Sale Copy Service** and **Point of Sale Posting Service**.

a) **Point of Sale Copy and Posting Service**, select whether you want these features to be installed on the local hard drive or these features and all sub-features will be installed on local hard drive.

These services are only required at he **MAIN** online SYSPRO 8 Point of Sale site. They will copy data from **OFFLINE** branches and post it to SYSPRO.

For our purposes select the option **The feature and all subfolders will be installed on the local hard drive**.
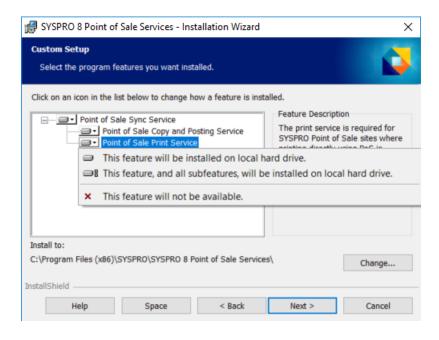
The *Custom Setup* window is displayed.

b) **Point of Sale Print Service**, select if you want this feature to be install on the local hard drive or this feature and all sub-features will be installed on local hard drive.
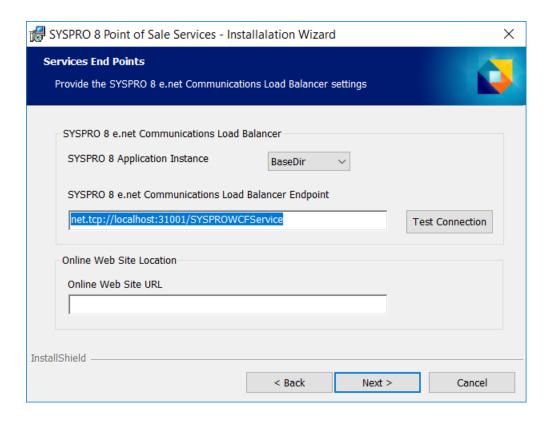
The print service is required for *SYSPRO Point of Sale* sites where printing directly using PoS is required. If printing using PDF viewers installed on the client machine

For our purposes select the option **The feature and all subfolders will be installed on the local hard drive**.

c) Accept or change the installation path and then select **Next >** to continue.

The *Services End Points* window is displayed.
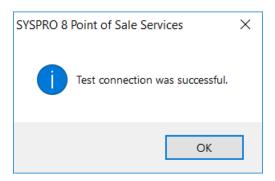
7. Provide the details required for the **SYSPRO 8 e.net Communications Load Balancer** as well as the **Online Web Site Location**.

    a) Select the base directory by using the dropdown list, for the **SYSPRO 8 Application Instance**.
        Accept **BaseDir** as the **SYSPRO 8 Application Instance**.

    b) Accept or enter the **SYSPRO 8 e.net Communications Load Balancer Endpoint**.
        For training purposes accept the default of **net.tcp://localhost:31001/SYSPROWCFService**.

    c) Test the connection.

        The *SYSPRO 8 Point of Sale Services* window is displayed showing whether or not the test connection was successful.
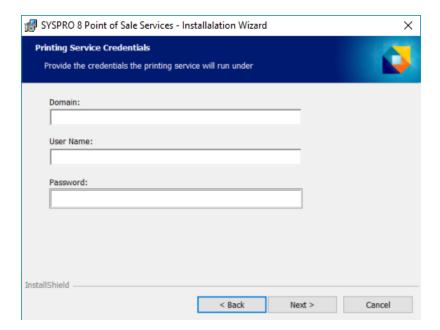
    d) Enter the URL for the Online Web Site.
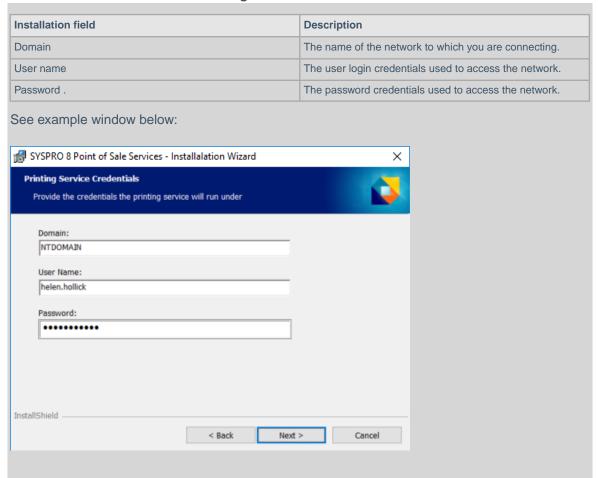
        Enter http://localhost/SYSPRO8POS_EDU1

8. Select **Next >** to continue.

    The *Printing Service Credentials* window is displayed.
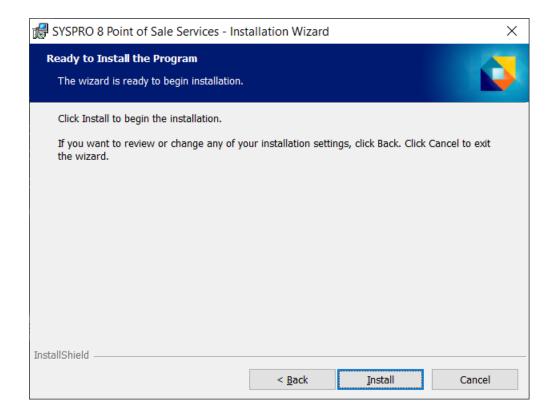
9. Provide the credentials that the **Printing Service** will run under.

Installation field	Description
Domain	The name of the network to which you are connecting.
User name	The user login credentials used to access the network.
Password .	The password credentials used to access the network.

See example window below:

10. Once the printing service credentials are accepted select **Next >** to continue.

The *Ready to Install the Program* window is displayed.

11. Select **Install**.

The ***Installation Wizard Completed*** window is displayed.

12. Select **Finish**.
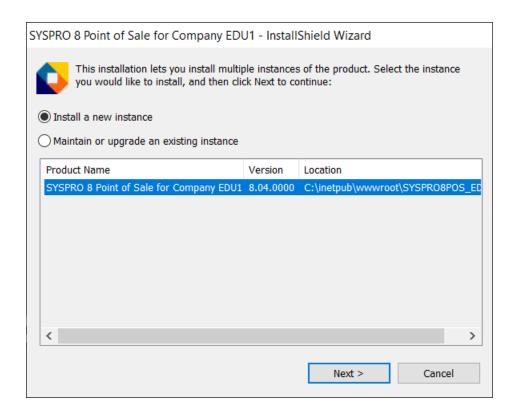
The ***SYSPRO 8 Point of Sale Online*** window is displayed.

Installing Another Instance

The following steps describe how to install another instance of Point of Sale Online.

1. From the **SYSPRO 8 Point of Sale Online** window select **Install another instance**.

    The **SYSPRO 8 Point of Sale for Company EDU1 - InstallShield Wizard** is displayed.
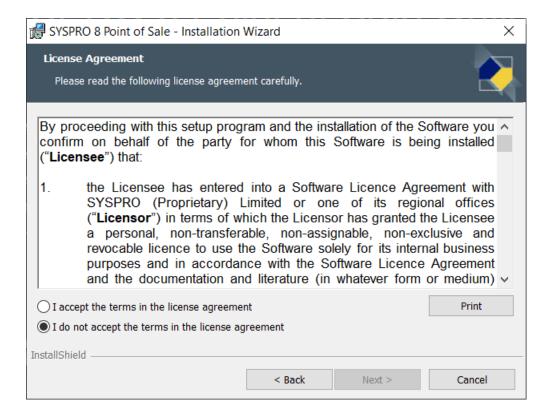
2. You can either install a new instance, maintain or upgrade an existing instance.
   Select **Install a new instance** and **Next >** to continue.

   The **SYSPRO 8 Point of Sale - Installation Wizard** window is displayed.
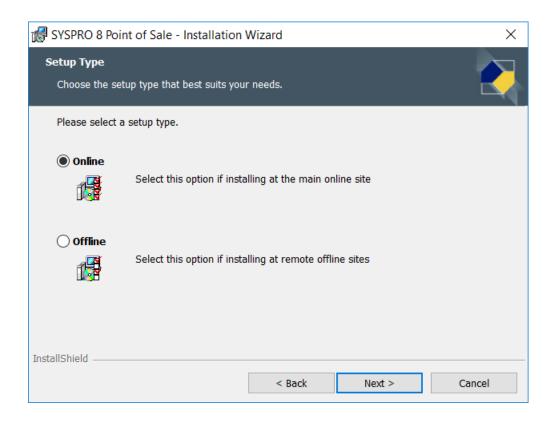
3. Select **Next >** to continue.

   The **License Agreement** window is displayed.
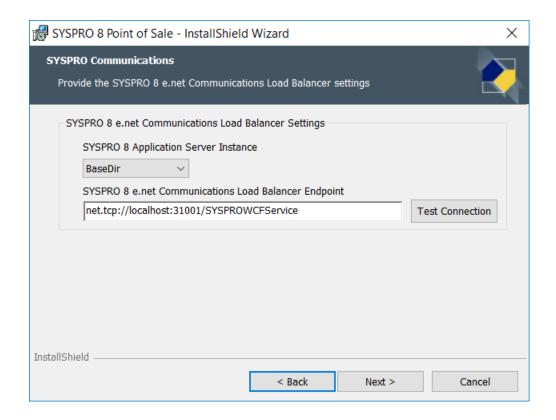
4. Accept the terms of the agreement.
   a) Read/Print the license agreement.
   b) Select **I accept the terms in the license agreement**.
   c) Select **Next >**.

   The **Setup Type** window is displayed.

5. Select **Online** and then **Next >** to continue.
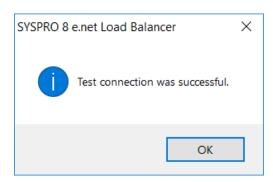
The **SYSPRO Communications** window is displayed.

6. Provide the **SYSPRO 8 e.net Communications Load Balancer** settings.
    a) Select the base directory for **SYSPRO 8 Application Server Instance** using the dropdown list.
        For training purposes accept the default of BaseDir.
    b) Enter the URL for the **SYSPRO 8 e.net Communications Load Balancer Endpoint**.
        Accept the default entry of **net.tcp://localhost:31001/SYSPROWCService**.
    c) Select **Test Connection**.

        The **SYSPRO 8 e.net Load Balancer** window is displayed showing whether or not the test connection was successful.

> **Note:** If the test connection is not successful then you will need to address the problem with the **SYSPRO e.net Communications Load Balancer Endpoint**.
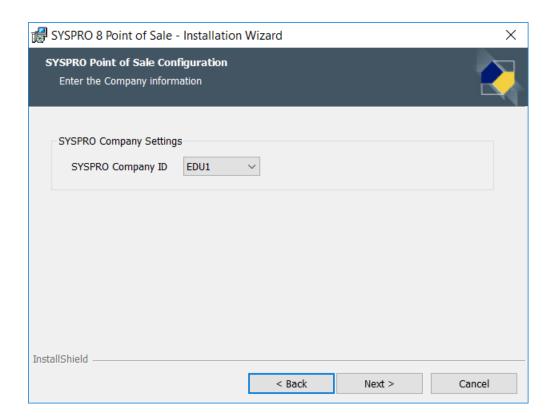
    d) Select **OK** to take you back to the **SYSPRO Communications** window.
    e) If the **Test Connection** is successful select **Next >** to continue.
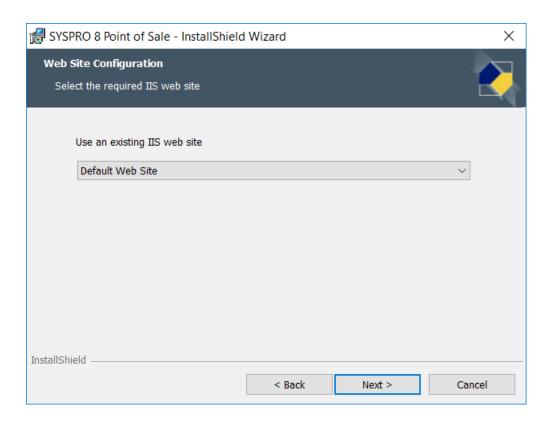
    The **SYSPRO Point of Sale Configuration** window is displayed.

---

7. Select your **SYSPRO Company ID** from the dropdown list and then **Next >** to continue.
    For training purposes accept the default SYSPRO Company ID (EDU2).
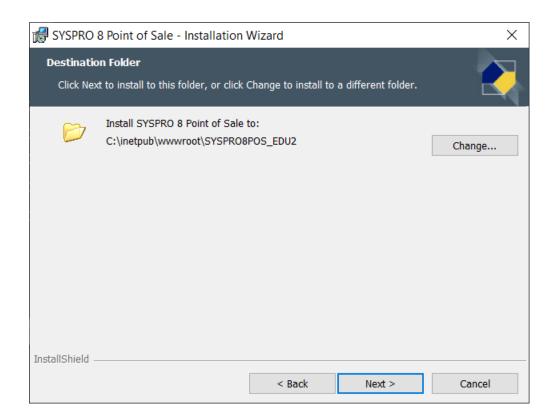
    The **Web Site Configuration** window is displayed.
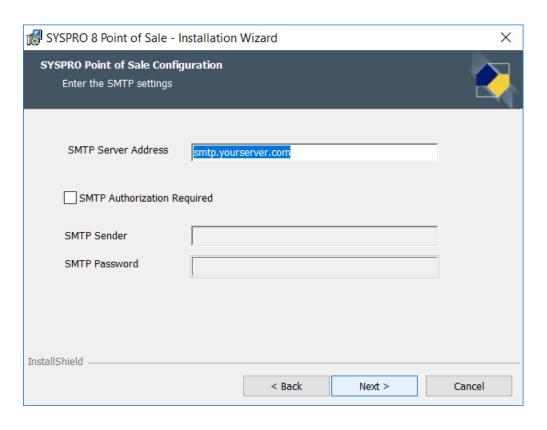
8. Select the required IIS Web Site and then **Next >** to continue.
    Accept **Default Web Site**.

    The **Destination Folder** window is displayed.

9. Accept the default **Destination Folder** or **Change...** to amend the path and then **Next >** to continue.

   The **SMTP settings** window is displayed.

10. Follow the steps below if you are going to connect SMTP.

    The Simple Mail Transfer Protocol (SMTP) is a communication protocol for electronic mail transmission.

---

a) Enter a **SMTP Server Address**.
b) If authorization is required, select **SMTP Authorization Required**.
c) Enter the **SMTP Sender**.
d) Enter the **SMTP Password**.
e) Select **Next >** to continue.

For training purposes leave these fields blank.

The *Database Server* window is displayed.

11. Enter the **SYSPRO database server**.

You can also select **Browse** to perform a search for a server.

a) Select a **SYSPRO Online database server** from the pick list or enter a server name.

Select (local).

b) Select **Next >** to continue.

The *Ready to Install the Program* window is displayed.

12. To begin the installation select **Install**.

    If you want to review or change any of your installation settings, click **< Back**. Select **Cancel** to exit the wizard.

    The **_Installation Wizard Completed_** window is displayed.

    The **Installation Wizard** has successfully installed **SYSPRO Point of Sale** Online.

13. Select **Finish** to exit the window.

14. Exit from the install program.

Launching SYSPRO Point of Sale Online for the First Time

The following steps describe how to launch SYSPRO Point of Sale, and then log into Point of Sale using the newly created branch and user.

ℹ️ Once you have installed **SYSPRO Point of Sale**, launch the program in your browser (**Internet Explorer**).

The initial loading of the site will take longer due to the SYSPRO Point of Sale database being added to **SQL Server**. Once the database is created Point of Sale will detect that there are no branches or users setup and prompt you to enter the basic information required for this.

You can then use the newly set up **Point of Sale User** to log in to the **SYSPRO Point of Sale** application.

1. Open the *SYSPRO Point of Sale* Silverlight application by entering the URL *http://{your server name}/SYSPRO8AvantiPOS_{yourcompanyID}/* in your browser's **Address** bar.
   Currently you need to use **Internet Explorer** to load the Silverlight version of Point of Sale.
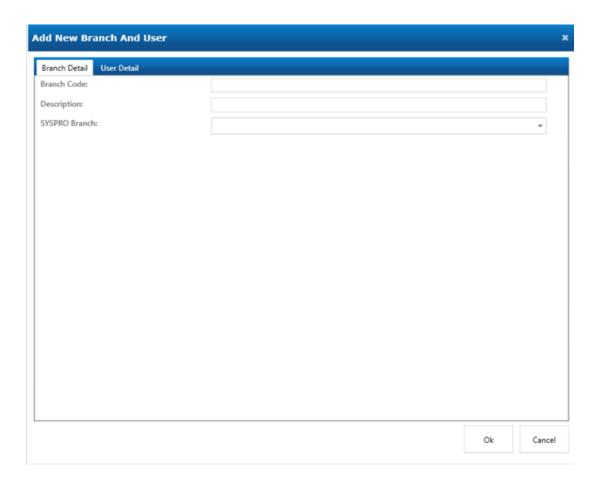
   Enter *http://localhost/SYSPRO8AvantiPOS_EDU1/* in your browser's **Address** bar.

   The **SYSPRO Point of Sale** application is opened, with the following error message.

Error ✕

There are no branches setup for Point Of Sale.

Ok

2. Select **Ok**.

The *Add New Branch And User* window is displayed, showing the **Branch Detail** tab.

Add New Branch And User ✕

| Branch Detail | User Detail |

Branch Code: [   ]

Description: [   ]

SYSPRO Branch: [▼]

Ok   Cancel

3. Add a new branch.

The bear minimum information is entered here. You will need to return to the **Branch and User** program to complete the balance of the required information later.

4. Create a branch.

a) Enter a branch code in the **Branch Code** field.

Enter *10 - North* in the **Branch Code** field.

The branch code has a limitation of 10 characters.

b) Enter a branch description in the **Description** field.
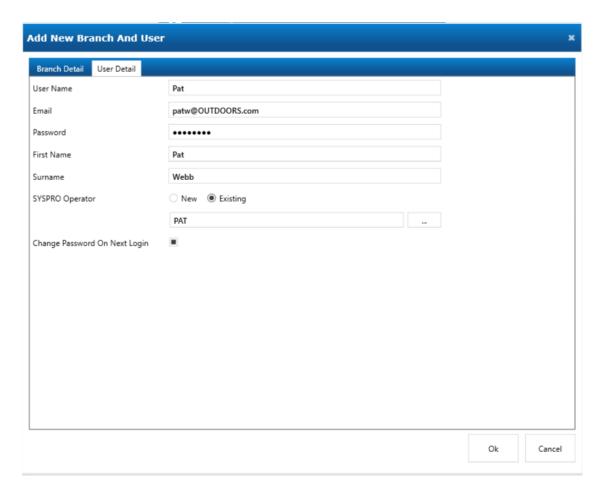
Enter *Receivables - North (Online)* in the **Description** field.

c) Select a SYSPRO branch from the **SYSPRO Branch** list.

Select **10 - Receivables - North** from the **SYSPRO Branch** dropdown list.

5. Create a user.

   a) Select the **User Detail** tab.

      The **User Detail** tab is displayed in the *Add New Branch And User* window.

   b) Enter the user login name in the **User Name** field.

      Enter *Pat* in the **User Name** field.

   c) Enter an email address in the **Email** field.

      Enter *patw@OUTDOORS.com* in the **Email** field.

   d) Enter a password in the **Password** field.

      Enter *p@ssw0rd* in the **Password** field.

   e) Enter the user's first name in the **First Name** field.

      Enter *Pat* in the **First Name** field.

   f) Enter the user's last name in the **Last Name** field.

      Enter *Webb* in the **Last Name** field.

   g) Select **Existing** to link the user to an existing SYSPRO operator, or select **New** to create a new SYSPRO operator for Point of Sale only.

      Note: If linking to an existing SYSPRO operator, ensure that the SYSPRO operator is set to use **Microsoft SQL Server authentication.**

      Also ensure that the username and password used for Microsoft SQL Server authentication are the same as the details provided in the SYSPRO Point of Sale Online and Offline installation wizards.
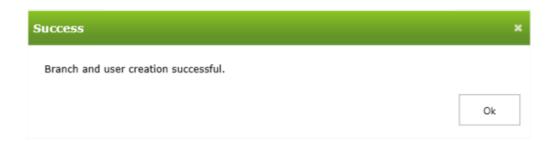
Select **Existing**.

Enter or Browse for *PAT* in the **SYSPRO Operator** field.

h) Select **Change Password On Next Login** if you want the operator to create their own password on next login.

For training purposes you do not have to select this option.

i) Select **Ok**.

> **Note:** An **Admin** user with full permissions is created. It is recommended to change the admin password on first login.

6. Select **Ok**.

The **SYSPRO Point of Sale Login** window is displayed.

Installation Offline

Installing SYSPRO Avanti Initialization Service Offline

The following steps describe how to install the SYSPRO Avanti Initialization Service - Offline.

⚠ You must have installed:
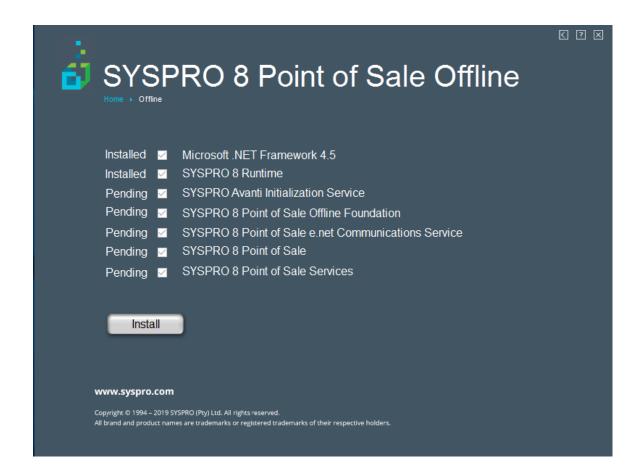
- Microsoft .NET Framework 4.5
- SYSPRO 8 Runtime
- SYSPRO 8 Point of Sale Online
- Added a branch and user in SYSPRO Point of Sale Online.

1. Run the **SYSPRO Point of Sale** autorun.exe program.

   The **Welcome, Select an installation type** window is displayed.

2. Select **Offline Installation**.

   The **SYSPRO Point of Sale Offline** window is displayed.

> **Note:** For a first time installation, all of the components will have an install status of **Pending**.
>
> If none of the components have been installed, it is recommended that you begin with installing Microsoft .NET Framework 4.5.
>
> For the purpose of this task, it is assumed that you have already installed Microsoft .NET Framework 4.5.

3. Select **Install** to continue.
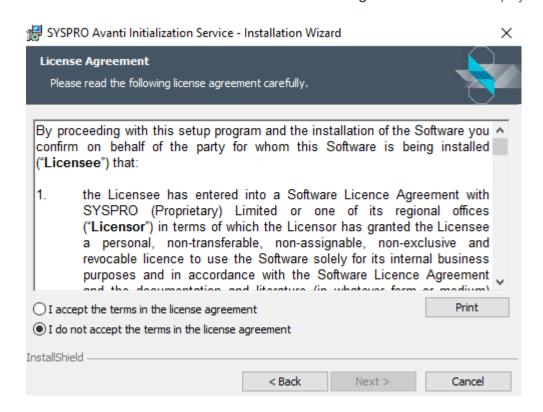
   The *SYSPRO Avanti Initialization Service - Installation Wizard* window is displayed.

4. Select **Next >** to continue.
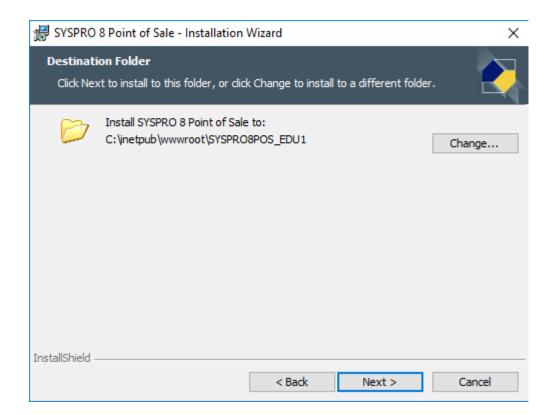
    The *SYSPRO Avanti Initialization Service - License Agreement* window is displayed.
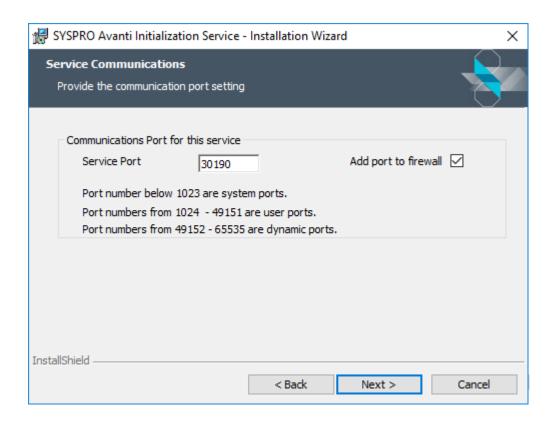
5. Accept the terms of the agreement.
    a) Read/Print the license agreement.
    b) Select **I accept the terms in the license agreement**.
    c) Select **Next >**.

    The *SYSPRO Avanti Initialization Service - Destination Folder* window is displayed.

6. Enter the folder that you want to install **SYSPRO Avanti Initialization Service**.
   a) You can change the install path by selecting **Change...** or accept the default.
   b) Select **Next >** to continue.
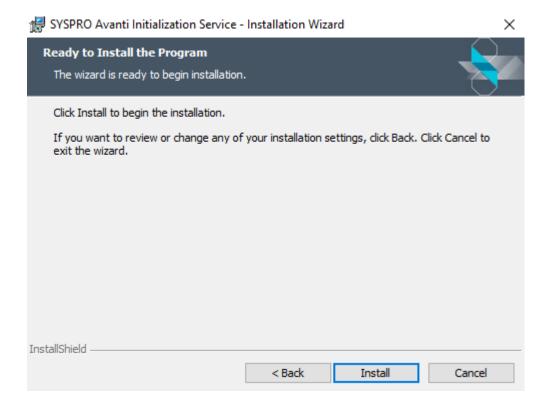
   The *Service Communications* window is displayed.

7. Provide the communication port setting and select **Next >** to continue.

Accept the defaults.

The **Ready to install the Program** window is displayed.

8. Select **Install** to continue.

The *Installation Wizard Completed* window is displayed.

9. Select **Finish**.

The *Welcome to the Installation Wizard for SYSPRO 8 Point of Sale Offline Foundation* window is displayed.

10. Follow the task steps to install the **SYSPRO 8 Point of Sale Offline Foundation**.

Installing SYSPRO 8 Point of Sale Offline Foundation

The following steps describe how to install the SYSPRO 8 Offline Foundation.

⚠ You must have installed:

- Microsoft .NET Framework 4.5
- SYSPRO 8 Runtime
- SYSPRO Avanti Initialization Service
- SYSPRO 8 Point of Sale Online
- Added a branch and user in SYSPRO Point of Sale Online.
- Add an offline branch and user for the Offline branch.

  📝 **Note:** This needs to be created via the **Main Branch > Branch Settings and Manage User**. You will also need to allocate a license to this branch before logging in.
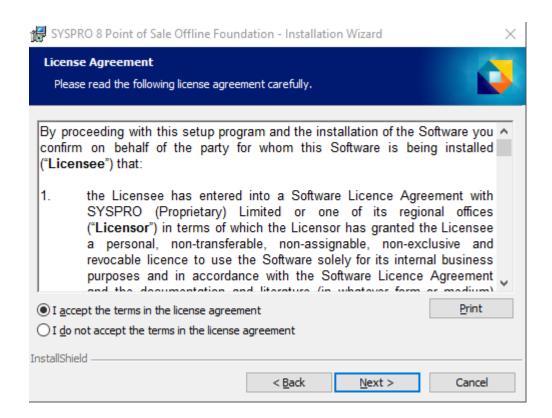
1. You have completed installing **SYSPRO Avanti Initialization Service Offline** and are now ready to install the **SYSPRO 8 Point of Sale Offline Foundation**.

   The *Welcome to the Installation Wizard for SYSPRO 8 Point of Sale Offline Foundation* window is displayed.

2. Select **Next >** to continue.

   The *License Agreement* window is displayed.
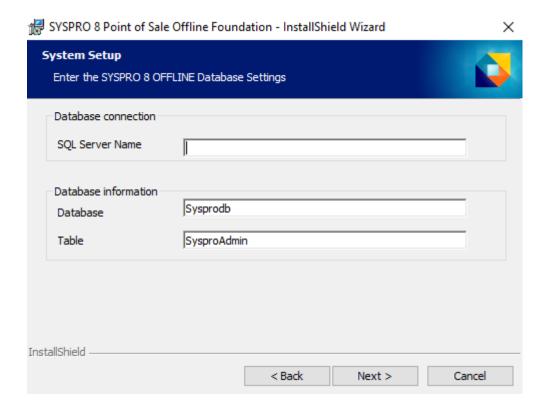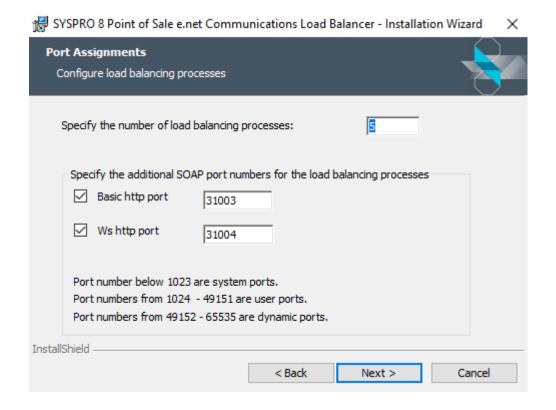

3. Accept the terms of the agreement.
   a) Read/Print the license agreement.
   b) Select **I accept the terms in the license agreement**.
   c) Select **Next >**.

The *System Setup* window is displayed.

4. Enter the **SYSPRO 8 OFFLINE** Database Settings.
   a) Enter the **SQL Server Name**.
   b) Enter or accept the **Database information**.
      Accept the defaults.
   c) Select **Next >**.
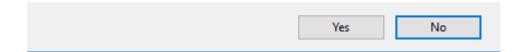
      The *OFFLINE Warning* window is displayed.
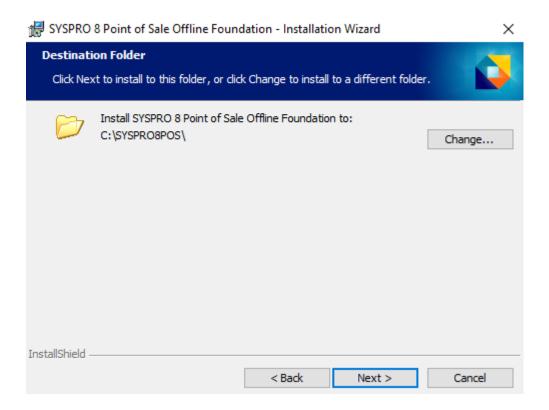
   d) Read the **OFFLINE Warning** and if all is ok select**Yes**.

      The *Destination Folder* window is displayed.
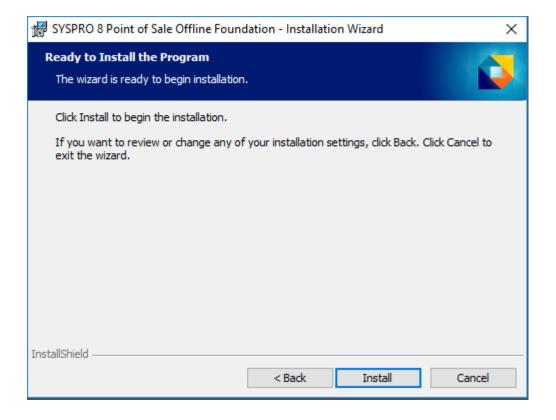
5. Enter the folder that you want to install the **SYSPRO Point of Sale Offline Foundation** to.

   a) You can change the install path by selecting **Change...**.

   Accept the default of **C:\SYSPRO8POS**.

   b) Select **Next >** to continue.

   The *Ready to Install the Program* window is displayed.

---

c) Select **Install**.

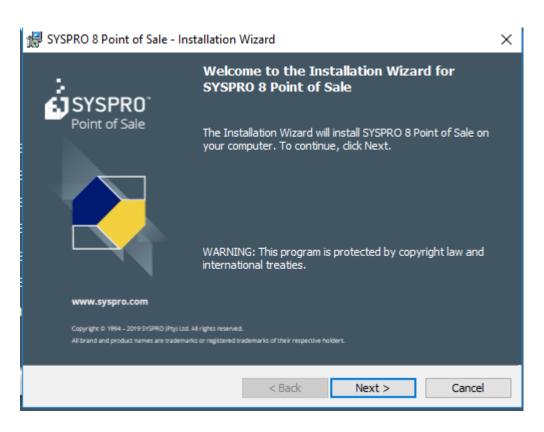The *Installation Wizard Completed* window is displayed.

6. Select **Finish** to exit the window.
    You now need to install the **SYSPRO 8 Point of Sale e.net Communications Service**.

Installing SYSPRO Point of Sale e.net Communications Service
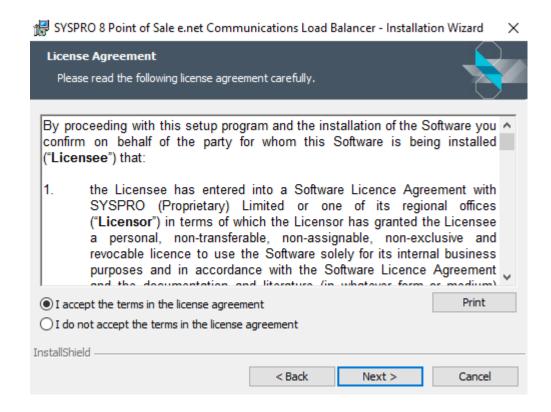
The following steps describe how to install the SYSPRO 8 Point of Sale e.net Communications Load Balancer in an offline environment.

⚠ You must have installed:

- Microsoft .NET Framework 4.5
- SYSPRO 8 Runtime
- SYSPRO Avanti Initialization Service
- SYSPRO 8 Point of Sale Offline Foundation
- SYSPRO 8 Online
- SYSPRO 8 Point of Sale Online
- Added a branch and user in SYSPRO Point of Sale Online.

1. Run the **SYSPRO Point of Sale** autorun.exe program and select to install *SYSPRO 8 Post of Sale e.net Communications Service* in an offline environment.
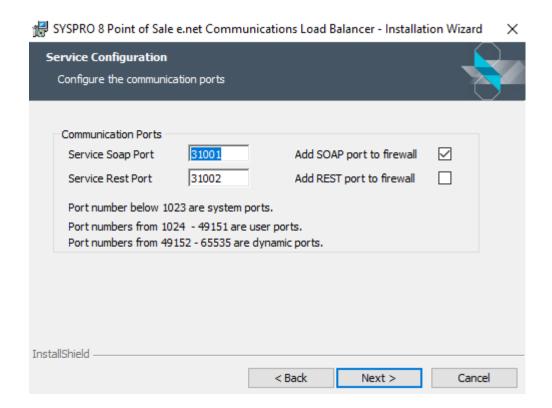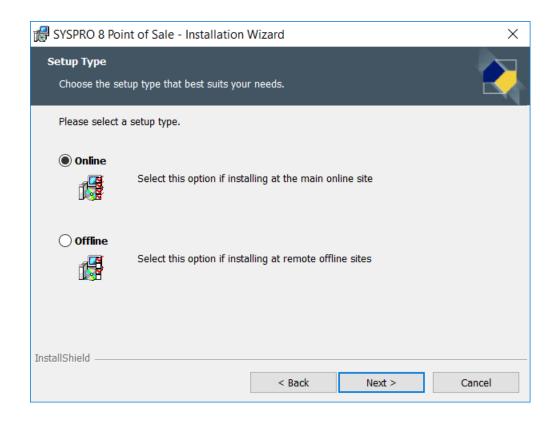
2. Select **Next >** to continue.
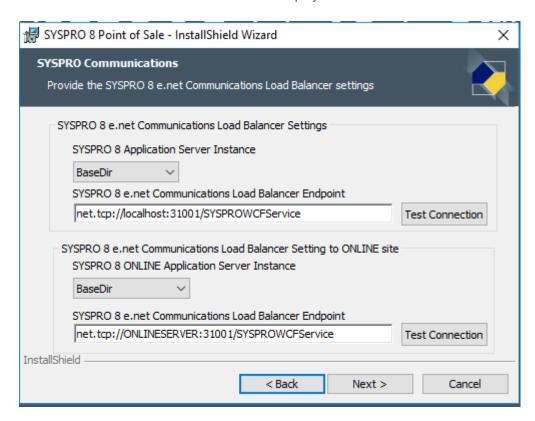
   The *License Agreement* window is displayed.

3. Accept the terms of the agreement.
   a) Read/Print the license agreement.
   b) Select **I accept the terms in the license agreement**.
   c) Select **Next >**.

   The *Service Configuration* window is displayed.
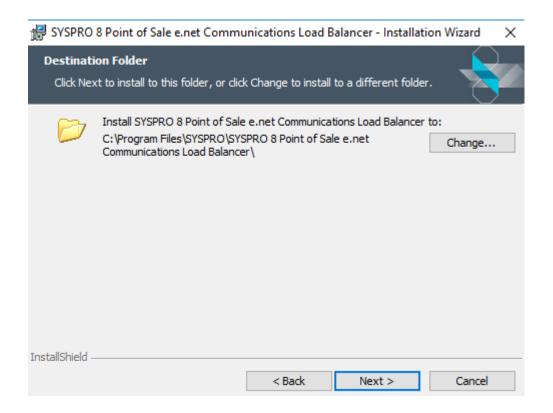
4. You need to configure your **Communication Ports**.

   a) Enter or accept the **Service Soap Port** and **Service Rest Port**.

   b) Select to **Add SOAP port to firewall**.

      For training purposes, keep the defaults.

   c) Select **Next >** to continue.

   The ***Port Assignments*** window is displayed.
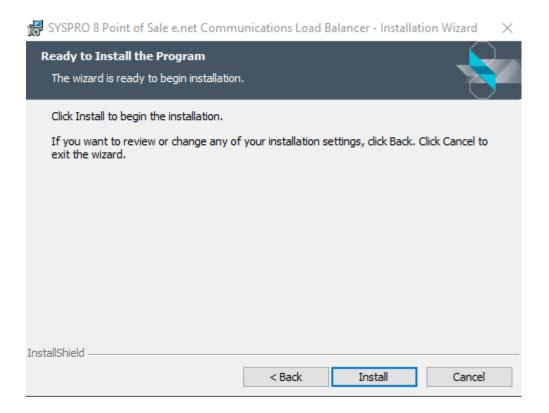
5. Configure the load balancing processes.

   a) Specify the number of load balancing processes.
   b) Specify the additional SOAP port number for the load balancing processes.
   Accept the defaults.
   c) Select **Next >** to continue.

   The *SYSPRO 8 Point of Sale e.net Communications Load Balancer* window is displayed.

6. Select the folder you want to install the **SYSPRO 8 Point of Sale e.net Communications Load Balancer** to.

   a) You can accept the default folder or you can change the installation path by selecting **Change...**.
   b) Select **Next >** to continue.

   The *Ready to Install the Program* window is displayed.

7. Select **Install**.

    The **Installation Wizard Completed** window is displayed.

8. Select **Finish**.
    You are now ready to install **SYSPRO 8 Point of Sale Offline**.

Installing SYSPRO 8 Point of Sale Offline

The following steps describe how to install SYSPRO 8 Point of Sale in an offline environment.
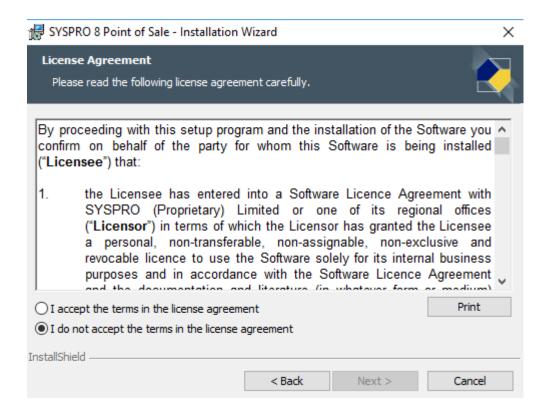
⚠ You must have installed:

- Microsoft .NET Framework 4.5
- SYSPRO 8 Runtime
- SYSPRO Avanti Initialization Service
- SYSPRO 8 Point of Sale Offline Foundation
- SYSPRO 8 Point of Sale e.net Communications Service
- SYSPRO 8 Online
- SYSPRO 8 Point of Sale Online
- Added a branch and user in SYSPRO Point of Sale Online.

1. Run the **SYSPRO Point of Sale** autorun.exe program and select to install SYSPRO 8 Point of Sale.

    The *Welcome to the Installation Wizard for SYSPRO 8 Point of Sale* window is displayed.

2. Select *Next >* to continue.

    The *License Agreement* window is displayed.

---

3. Accept the terms of the agreement.
   a) Read/Print the license agreement.
   b) Select **I accept the terms in the license agreement**.
   c) Select **Next >**.

   The **The Setup Type** window is displayed.

4. Select **Offline** and then **Next >** to continue.

The **SYSPRO Communications** window is displayed.

5. Enter the required **SYSPRO 8 Communications Load Balancer** settings.
    a) Accept or change the base directory for the **SYSPRO 8 Application Server Instance**.
       Accept **BaseDir**.
    b) Enter the URL for **SYSPRO 8 e.net Communications Load Balancer**.

       Accept **net.tcp://localhost:31001/SYSPROWCFService**.

       Select **Test Connection** to check that the URL is correct.

       If the **Test Connection** does not connect, you need to sort out the problem before continuing.
    c) Provide the **SYSPRO 8 e.net Communications Load Balancer Setting to the ONLINE site**.
    d) Accept or change the base directory for the **SYSPRO 8 Application Server Instance**.
       Accept **BaseDir**.
    e) Provide the **SYSPRO 8 e.net Communications Load Balancer Endpoint** URL and then test the connection.
       Amend ONLINESERVER to be the name of the online machine or enter the IP Address of the ONLINE machine.
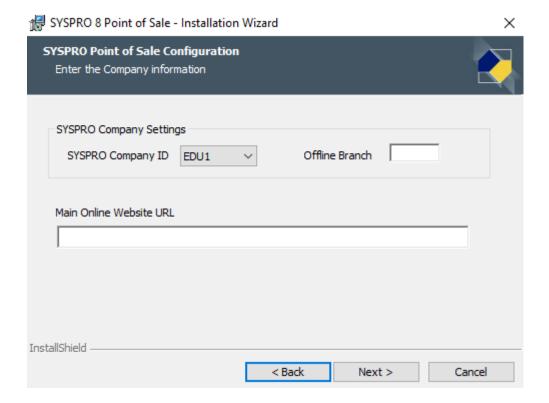
       If the **Test Connection** does not connect you need to sort out the problem before continuing.

6. Select **Next >** to continue.

    The **SYSPRO Point of Sale Configuration** window is displayed.

7. Select the **SYSPRO Company Settings**.

   a) Using the drop down select the **SYSPRO Company ID**.
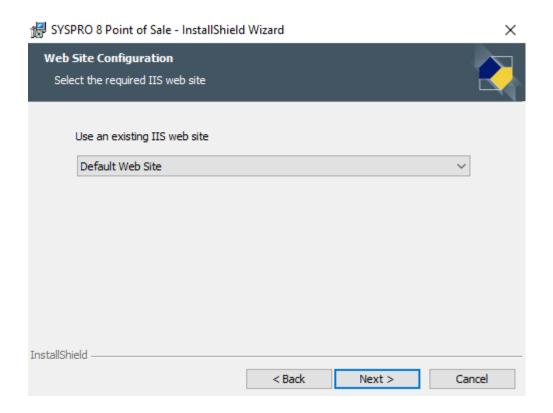
      For training purposes accept EDU1.

   b) Enter the **Offline Branch** code.

      Enter *10*.
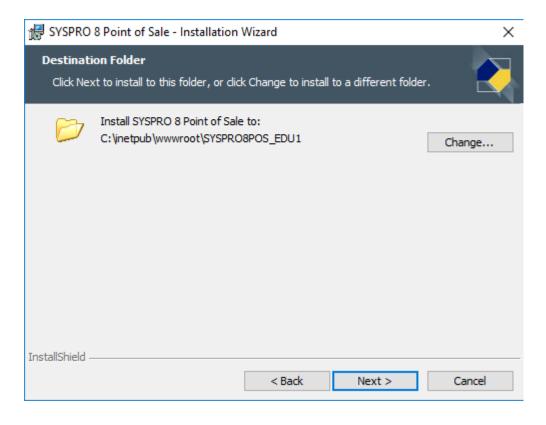
   c) Enter the **Main Online Website URL**.

      Enter **http://MACHINENAME/SYSPRO8AVANTIPOS_EDU1/**. You can enter the IP Address for the machine name.

8. Select **Next >** to continue.

   The *Web Site Configuration* window is displayed.

9. Select the required IIS web site.
    a) Using the drop down list select an existing IIS web site.

        Accept **Default Web Site**.

10. Select **Next >**.

    The ***Destination Folder*** window is displayed.
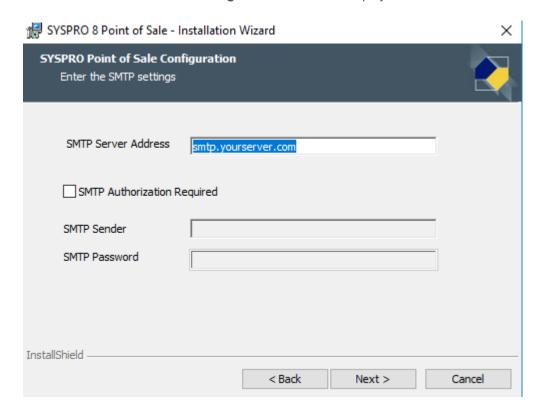
11. Accept or change where you want to install SYSPRO8 Point of Sale to.

Accept the default entry.
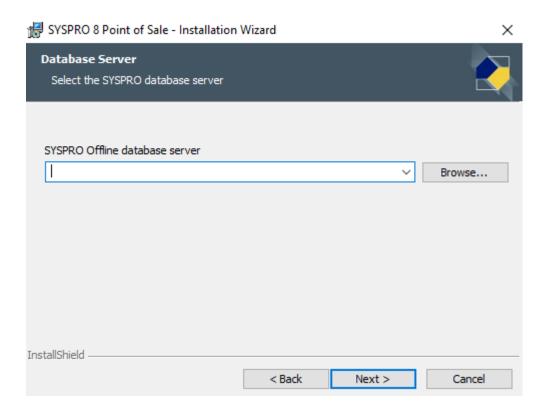
12. Select **Next >** to continue.

The *SYSPRO Point of Sale Configuration* window is displayed.
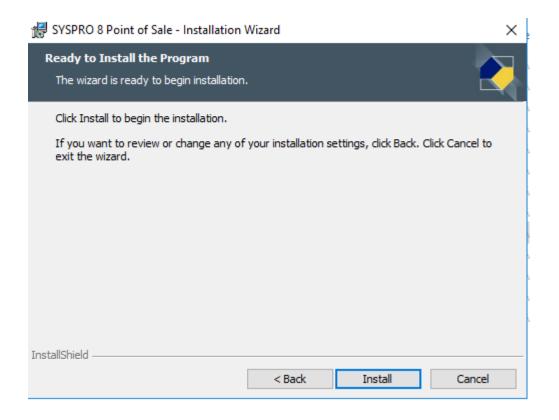
13. Enter the **SMTP Settings**.
    a) Enter the **SMTP Server Address**.
    b) If authorization is required, select **SMTP Authorization Required**.
    c) Enter the **SMTP Sender**.
    d) Enter the **SMTP Password**.
    Leave all fields blank for training purposes.
    e) Select **Next >** to continue.

    The *Database Server* window is displayed.

14. Using the drop down list select the name of the **SYSPRO Database Server**.
    a) You can also **Browse** for the **Database Server Name**.

       Select **(local)** for the **Database Server Name**.
    b) Select **Next >** to continue.

       The *Ready to Install the Program* window is displayed.

15. Select **Install**.

The *Installation Wizard Completed* window is displayed.

16. Select **Finish**.
    You now need to install the **SYSPRO 8 Point of Sale Services**.

Installing the SYSPRO Point of Sale Services

The following steps describe how to install Services for Point of Sale.

⚠ You must have installed:

- Microsoft .NET Framework 4.5
- SYSPRO 8 Runtime
- SYSPRO Avanti Initialization Service
- SYSPRO 8 Point of Sale Offline Foundation
- SYSPRO 8 Point of Sale e.net Communications Service
- SYSPRO 8 Point of Sale Offline
- SYSPRO 8 Online
- SYSPRO 8 Point of Sale Online
- Added a branch and user in SYSPRO Point of Sale Online

1. Having completed the SYSPRO 8 Point of Sale Offline install you will now install the SYSPRO 8 Point of Sale Services.
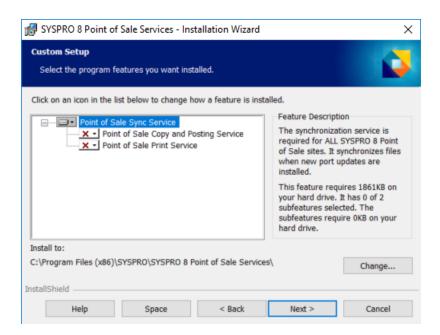
2. Select **Next >** to continue.

   The *License Agreement* window is displayed.

3. Accept the terms of the agreement.

   a) Read/Print the license agreement.
   b) Select **I accept the terms in the license agreement**.
   c) Select **Next >**.

The *Custom Setup* window is displayed.

4. Select where you want to install the **Custom Setup**.

The synchronization service is required for **ALL** SYSPRO 8 Point of Sale sites. It synchronizes files when new port updates are installed.

a) **Point of Sale Copy and Posting Services** are only required on the **MAIN** online SYSPRO 8 Point of Sale site. They will copy data from offline branches and post it to SYSPRO.

b) The print service is required for **SYSPRO Point of Sale** sites where printing directly using Point of Sale is required. If printing using PDF viewers installed on client machines are used this is not required.

c) Select **Next >** to continue.

The *Services End Points* window is displayed.
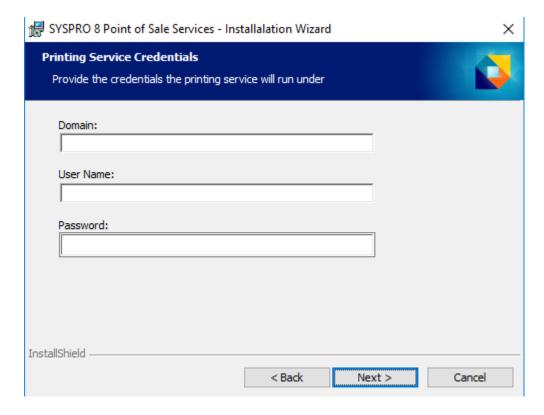
5. Enter the SYSPRO 8 e.net Communications Load Balancer Settings.

a) Select the correct entry for the **SYSPRO 8 Application Instance**.

Accept the default of BaseDir.
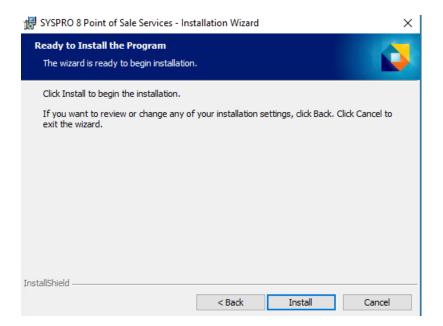
b) Enter or Accept the default entry for the **SYSPRO 8 e.net Communications Load Balancer Endpoint**.

c) Test the Connection. If the connection is successful, move onto entering the Online Web Site URL. If the connection is not successful then you need to correct the errors before continuing.

d) Enter the **Online Web Site URL**.

Enter http:\\localhost\SYSPRO8AVANTIPOS_EDU1.

e) Select **Next >** to continue.

The *Printing Service Credentials* window is displayed.

6. Provide the **Printing Service Credentials** and select **Next >** to continue.

7. Once the printing service credentials are accepted select **Next >** to continue.

The *Ready to Install the Program* window is displayed.
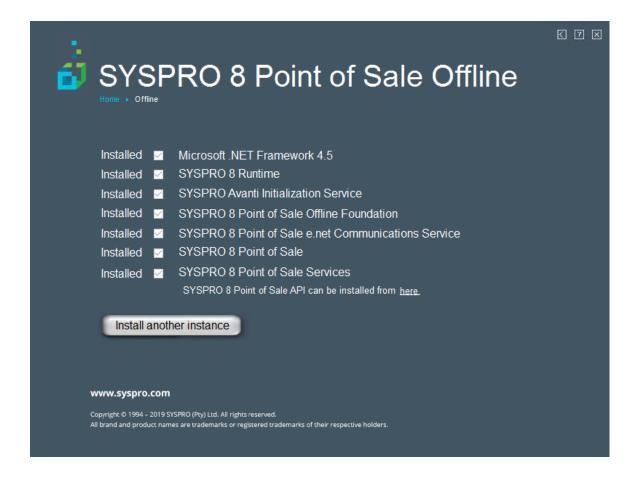
8. Select **Install**.

The ***Installation Wizard Completed*** window is displayed.

9. Select **Finish**.

The ***SYSPRO 8 Point of Sale Offline*** window is displayed.

You will not be installing another instance of Point of Sale at this stage. Select **x** to exit the program.

Installing the SYSPRO Point of Sale Utility Service

The following steps describe how to install the SYSPRO Point of Sale Utility Service
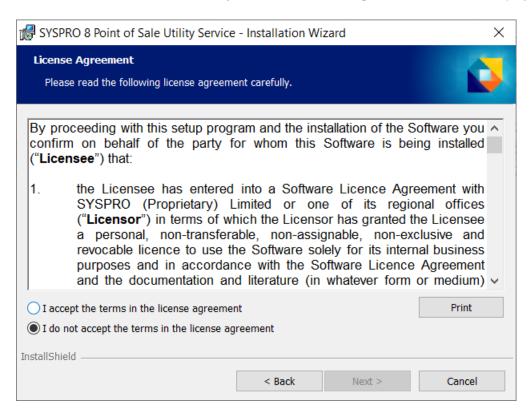
⚠ You need to download the **SYSPRO Point of Sale Autorun** before attempting this task.

ℹ The **SYSPRO Point of Sale Utility Service** is used to communicate with devices on the client machine.

1. Navigate to the **SYSPRO 8 POS Autorun** folder.
    Navigate to SYSPRO Deployment > syspro-8-2020-r2 > SYSPRO 8 POS Autorun.
2. Select **SYSPRO8POSAutorun_2020-R2.ico**
3. Change directory to POS.
4. Select to run the **SYSPRO.8.Point.of.Sale.Utility.Service.exe**.

    The **SYSPRO 8 Point of Sale Utility Service - Installation Wizard** window is displayed.

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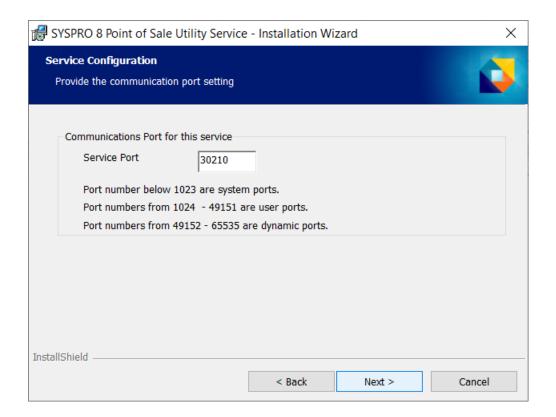
5. Select **Next >** to continue.

The *SYSPRO 8 Point of Sale Utility Service - License Agreement* window is displayed.
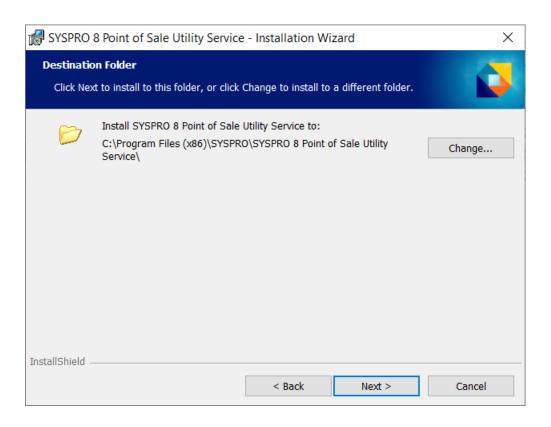
6. Accept the terms in the license agreement and select **Next >**.

The *SYSPRO 8 Point of Sale Utility Service - Service Configuration* window is displayed.
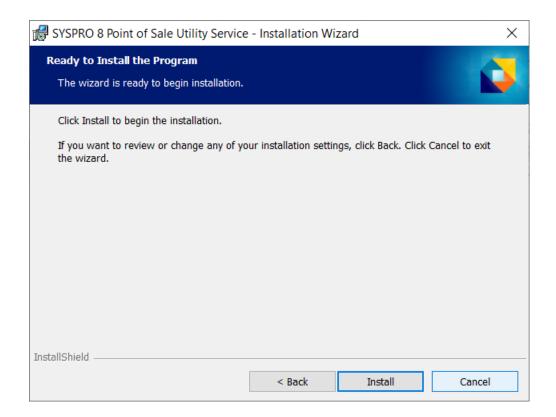
7. Select the default **Service Port** an select **Next >** to continue.

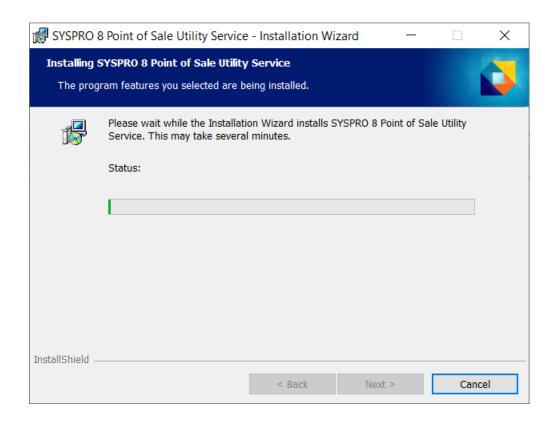   The **SYSPRO 8 Point of Sale Utility Service - Destination Folder** window is displayed.

8. Accept the default folder and the select **Next >** to continue.

9. Select **Install**.

    The **Installing SySPRO 8 Point o Sale Utility Service** window is displayed.

The **SYSPRO 8 Point of Sale Utility Service - Installation Wizard Completed** window is displayed.

10. Select **Finish**.

Manually updating the SystemConfig.xml file.

The following steps describe how to manually configure the Utility Service.

⚠ The **SYSPRO Point of Sale Utility Service** has just been installed.

ⓘ The installation of the **SYSPRO Point of Sale Utility Service** does not update the **SystemConfig.xml** file during the install

1. Navigate to where you installed **SYSPRO Point of Sale**.
   Navigate to **inetpub > wwwroot > SYSPRO8POS_EDU1 > SYSPRO POS**. EDU1 is the Education company code. Your company code would be different..

2. Select to edit the **SystemConfig.xml** file.

3. Find the <SysproPosClientSideServiceUrl /> element.
   Enter http://localhost:30210
   <SysproPosClientSideServiceUrl >http://localhost:30210 </SysproPosClientSideServiceUrl>

4. *Save* the file.

5. It is recommended to stop and restart this service.

Epilogue

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Comment Sheet

Please send us your comments to help improve the standard of the workbooks. All emails can be sent to *education@syspro.com*.