



Multi-Store for Technicians

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Introduction

The Edge was designed from the start with multi-store configurations in mind. The database identifies customers, inventory, and transactions by their “home” store; other records (vendors, associates, categories, etc.) are maintained at the central location and shared by all stores. In a full-blown, multi-store configuration, each store has a complete multi-store database. Each store can view, and in some cases modify, all the data from each of the other stores. System setup information, such as category pricing and tag layouts, can be administered at a central location and automatically implemented in each store. The databases are synchronized with each other on a schedule. Changes in one store are not seen in the other stores in real time, but only after one or two complete synchronization cycles occur.

Multi-Store Prerequisites

The store’s local technician must do the following:

- Obtain a static, external IP address at one location where the transporter server (TxServer) will run. Contact your Internet service provider (ISP) to obtain this. This may take some time, so contact your ISP right away.
- Enable port forwarding for ports 5555 and 5556 (UDP & TCP) to the server pc at store where txServer will run.
- Set exceptions for Windows firewall and other installed security applications to ensure txServer.exe, txClient.exe and ports 5555, 5556 are not blocked.

The technician should be available by phone when The Edge is installed in case something is blocking those ports.

FAQs:

Q. Is Dynamic DNS adequate as an alternative to a static IP?

A. Yes, as long as it is reliable.

Q. Can we use our store’s current VPN instead of subscribing to a static IP?

A. Yes, a reliable VPN is a good solution for multi-store. Have your tech contact The Edge Support Team to coordinate the transfer setup and be available for installation appointment.

Background

The Transporter Client (TxClient)

At each store, the transporter client (TxClient) process, once configured, automatically downloads updates obtained via the transporter server, imports them into The Edge database, exports changes from The Edge database, and uploads the changes to the central location. This process runs on a schedule. Most jewelers will find it best to run TxClient every 30 minutes, with a starting time chosen to avoid the

busiest hours of the day. Only one PC per store location will run TxClient. We recommend TxClient run on the same PC where The Edge database resides.

The Transporter Server (TxServer)

One PC somewhere within the multi-store environment must run the “Transporter Server” (TxServer). Most commonly this is the headquarters or store 1 location; however, it is not required. TxServer must run at a location where a static IP address is available and where the internet signal is known to be most reliable. Each TxClient will connect to the TxServer, on schedule, to exchange data. The TxServer simply acts as a central storage facility. All files destined from one store to another will be uploaded to the TxServer by the sending store, and downloaded from the TxServer by the receiving store. If the TxServer is to run at a store location, then that store must run both TxServer and TxClient.

When choosing the location at which TxServer should run, it is best to select the location with the most reliable Internet connection. This location will most likely be in a store, or at a headquarters location, but can be another location (such as a local ISP, another trusted business, or the jewelers home) if necessary to ensure the best communications.

TxPhoto

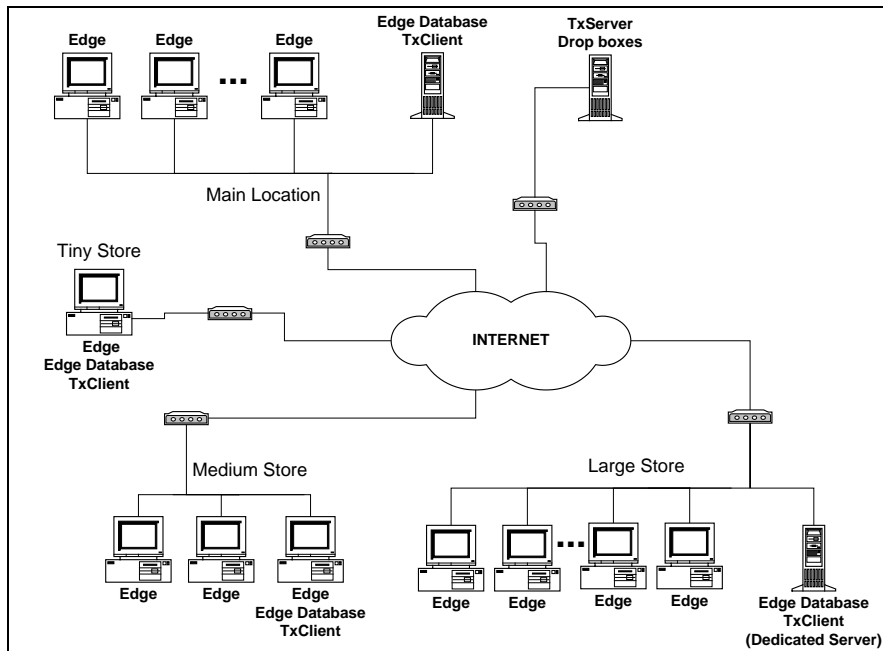
TxPhoto works like TxClient, but manages photograph syncing between stores. Because photo files and folders differ in size and compression from store to store, the parameters used vary case-by-case. For details, review the section entitled Configuring TxPhoto.

Configuring the Environment

The store’s local network technician must do the following:

1. Set a static LAN IP address to the PC where TxServer will run (this would be the server PC at the location with the static EXTERNAL IP address)
2. Enable port forwarding for ports 5555 and 5556 (UDP & TCP) to the server PC at the store where TxServer and TxPhoto Server will run
3. Set exceptions for Windows® firewall and other installed security applications to ensure TxServer.exe, TxClient.exe, and ports 5555, 5556 are not blocked.
4. The technician should be available (at least by phone) when The Edge is installed in case something is blocking those ports.

This scheme was chosen to provide maximum functionality in each store without imposing additional processing or communications time after each transaction. In addition, even the best WAN or VPN solutions will experience latency and dropouts which can lead to database corruption in a file-sharing environment. The following illustrates a variety of stores in a multi-store configuration.

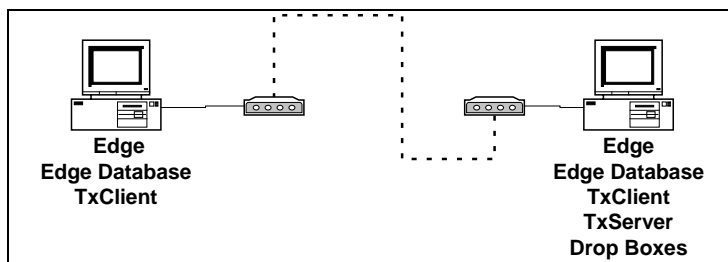


It is not strictly necessary to buy additional computers for the multi-store software. The TxClient and TxServer can run at existing workstations. Those high-volume stores that run a dedicated server should run TxClient and/or TxServer on that server PC.

Inter-Store Connectivity

A variety of inter-store network configurations will work. We recommend always-on, high-speed Internet connections (such as DSL or cable) at all locations.

The TxServer machine must have a static Internet IP address, or use a dynamic DNS service.



Installation and Configuration

Pre-Configuring The Edge

In each store, it is critical that each workstation be configured for the proper store number. A mix of workstation store numbers will lead to loss of data.

In a multi-store configuration, it is most common that inventory is entered from a central location and distributed to satellite store locations. By default, The Edge assumes store 1 or store 0 (if you purchased a special HQ-only license), so this store produces standard item numbering. Inventory records can be added at any satellite location as well, however an expanded numbering convention will be used to prevent numbering conflicts, therefore a modified tag layout may be required.

REMINDER!

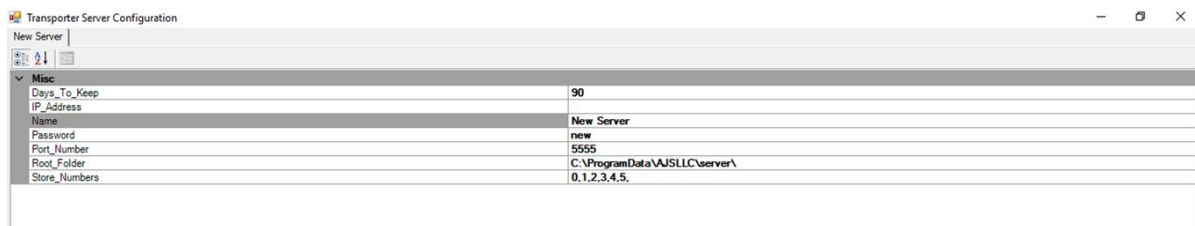
Be sure to enable port forwarding for ports 5555 and 5556 (UDP & TCP) to the server PC at store where TxServer will run.

The TXServer software is installed automatically when you install The Edge.

Configuring TxServer

To configure TxServer:

1. From the Windows **Command Prompt**, type `cd c:\ProgramFiles (x86)\ajsllc\edge` (or whatever path is correct for your configuration).
2. At prompt type `txserver.exe -c`.
3. The **Transporter Client Configuration** screen, will appear.



Fields and options available in the **Transporter Server Configuration** screen include:

- Days_To_Keep** The number of days to keep files after they have been delivered. It is often advantageous to keep these files for trouble-shooting purposes. The default is 90 days. Chose a smaller value if storage space is a concern.
- IP_Address** The IP address of the server device.
- Password** The password to use to connect to this device.
- Port_Number** The port number on which TxServer will listen. This must match the corresponding value in the TxClient Configuration. The default value is 5555. This value should be changed only if made necessary by your network configuration, e.g., a firewall.
- Root_Folder** A local folder used for temporary storage of uploaded and downloaded files. This folder should be for the exclusive use of TxServer. This folder should not be used by TxClient or any other program.

Store_Numbers A comma-separated list of store numbers to be supported by this TxClient. Note that the only aspect of TxServer operation affected by this parameter is which stores are included when a TxClient sends a file to all other stores.

4. Set each parameter as desired, and select **OK**.
5. To set up TxServer as a service, continue with the next section.

Setting Up TxServer as a Service

To allow TxServer to run as a service:

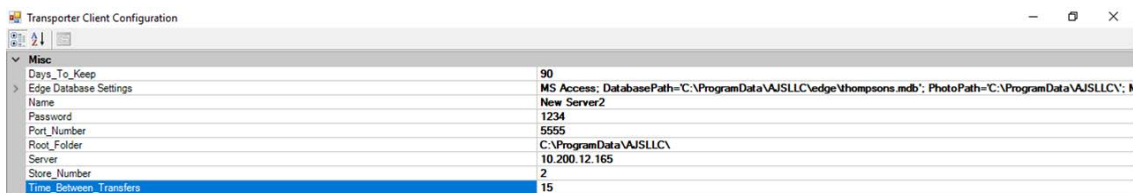
1. On the Transporter Server device, From the Windows **Command Prompt**, type `cd C:\Program Files (x86)\ajslc\Edge\TxServer.exe -install` switch (instead of `-c`). If it does not run, double check the command line path.
2. It will run in the command window.
3. Follow the instructions.

In the event you need to uninstall TxServer, run the file with the `-uninstall` switch.

Configuring TxClient

To configure TxClient:

1. On every device running the client software, from the Windows **Command Prompt**, type `cd c:\ProgramFiles (x86)\ajslc\edge\txclient.exe -c` (or whatever path is correct for your configuration).
2. The **Transporter Client Configuration** screen, will appear.



Fields and options in the **Transport Client Configuration** screen include:

- Days_To_Keep** The number of days to keep files after they have been processed. It is often advantageous to keep these files for trouble-shooting purposes. The default is 90 days. Chose a smaller value if storage space is a concern.
- Edge Database Settings** The location of the shared Edge database from which changes will be exported and into which changes will be imported.
- Name** The store name as set up in TxServer.
- Password** The password as set up in TxServer to connect to this device.

Port_Number	The TCP/IP port number for the TxServer. This must match the corresponding value in the TxServer configuration. The default value is 5555. This value should be changed only if made necessary by your network configuration, e.g., a firewall.
Root_Folder	A local folder used for temporary storage of uploaded and downloaded files. This folder should be for the exclusive use of TxClient. TxServer or any other program should not use this folder.
Server	The DNS name or IP address of the system on which TxServer is running.
Store_Number	The store number corresponding to this instance of TxClient. This should match The Edge configuration for this store.
Time Between Transfers	The frequency with which to run the transfer. We recommend 5, which will be 5 minutes.

3. Set each parameter as desired, and select **OK**.
4. To set up TxServer as a service, continue with the next section.

Setting Up TxClient to Run as a Service

To allow TxServer to run as a service:

1. On each client device, from the Windows **Command Prompt**, type `cd C:\Program Files (x86)\ajsllc\Edge\TxClient.exe -install` switch (instead of `-c`). If it does not run, double check the command line path.
2. It will run in the command window.
3. Follow the instructions.

In the event you need to uninstall TxServer, run the file with the `-uninstall` switch.

Configuring TxPhoto

TxPhoto Server Parameters

To access the configuration files for the TxPhoto server:

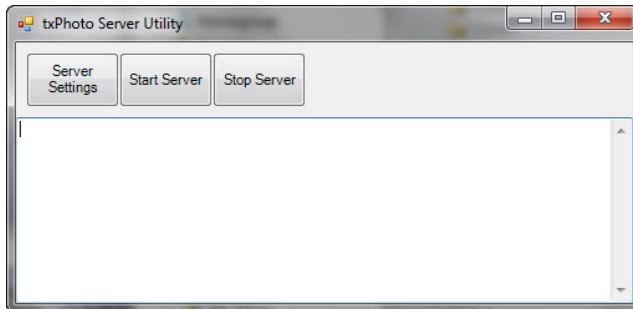
1. Run the TxPhoto executable with the correct switches. There are two switches: one to indicate that you want to configure the server and `-I` to get an interactive window. Therefore, the paths and switches to run are (these paths could vary based on your system setup):

```
"c:\Program Files\ajsllc\EdgeTXPhoto\txPhoto.exe" -Server -I
```

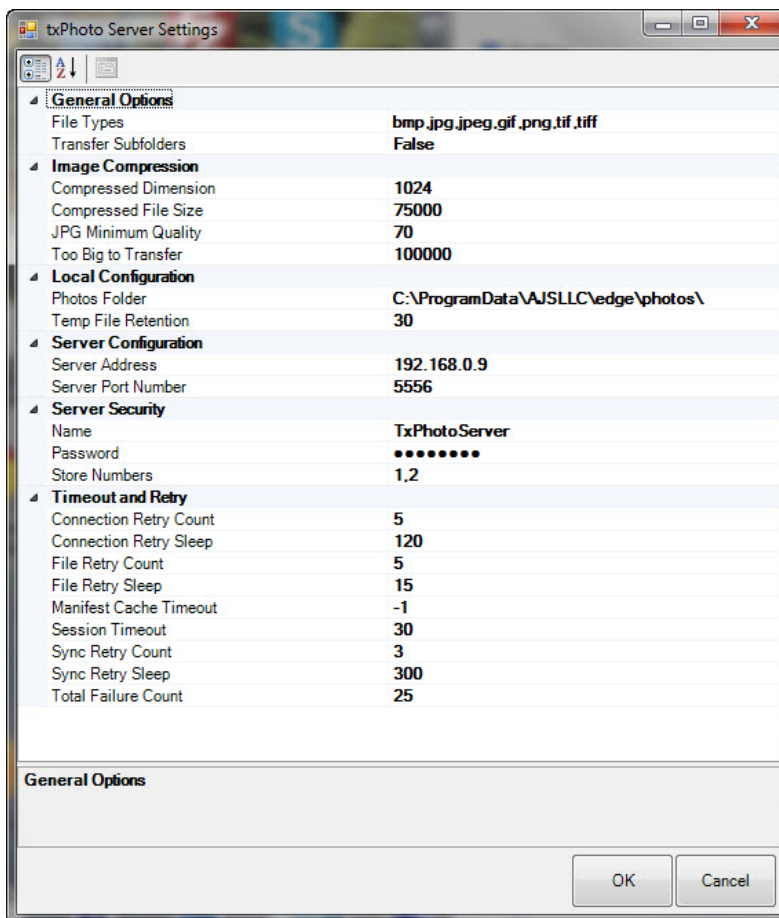
TIP!

It might be easier to make a shortcut on the desktop that includes these switches.

- The **TxPhoto Server Utility** window will appear.



- Select **Server Settings**. The **TxPhoto Server Settings** window will appear.



- Enter values for:
 - Photos Folder**
 - Server Address**
 - Name**
 - Password**
 - Store Numbers.**
- Select **OK**.

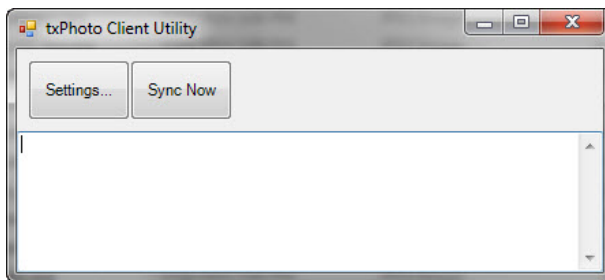
TxPhoto Client Parameters

TxPhoto Client must be set up and run at all locations where photos should be synchronized, except the main location where TxPhoto Server runs. To access the configuration files for the TxPhoto client:

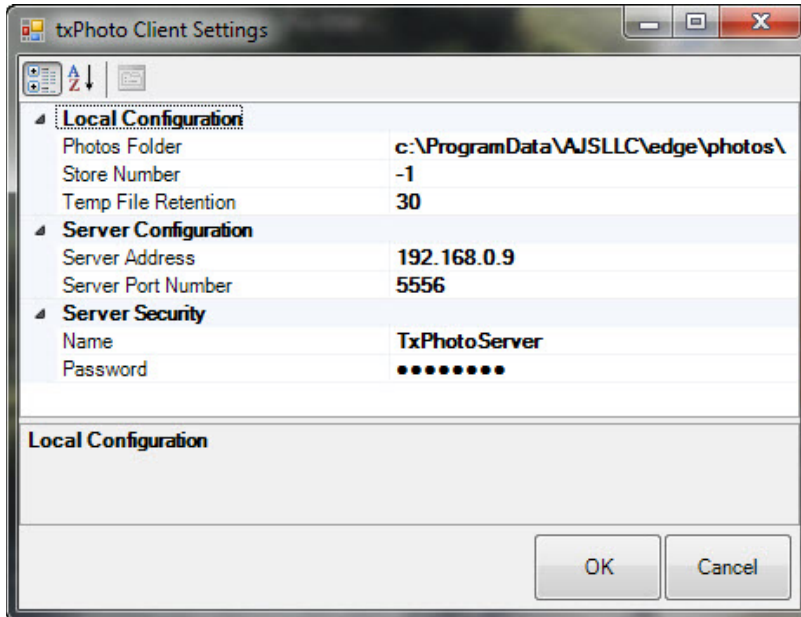
1. Run the TxPhoto executable with the correct switches. There are two switches: one to indicate that you want to configure the client and `-I` to get an interactive window. Therefore, the paths and switches to run are (these paths could vary based on your system setup):

```
"c:\Program Files\ajsllc\EdgeTXPhoto\txPhoto.exe" -Client -I
```

2. The **TxPhoto Client Utility** window will appear.



3. Select **Settings**. The **txPhoto Client Settings** window will appear.



REMINDER!

There is no need to set up TxPhoto Client at the location where TxPhoto server is running.

4. Complete these fields:
 - a. Set the **Photos** folder should match The Edge photos folder in The Edge configuration.

- b. Set the **Store Number** the same as the store number of TxClient configuration.
 - c. The **Server Address** should be set to the static IP address where TxPhoto Server runs.
 - d. Otherwise they should match those set in TxPhoto Server settings.
5. Select **OK**.

When Using a Task Scheduler Instead of TX as a Service

If you're going to run this using the windows task scheduler, the following sections outline how to do so.

Setting the Schedule for TxServer

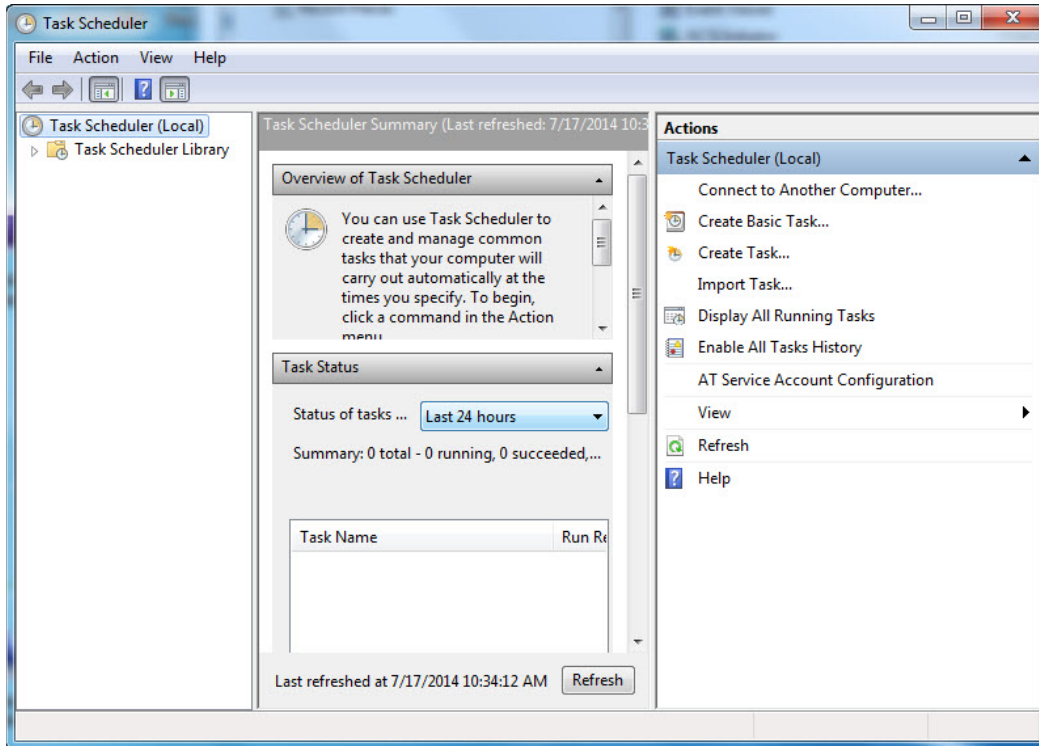
TxServer must run at all times without interruption. It should restart each time Windows starts up. The Edge support team has special licenses for third-party software called "Always Up," which is very reliable in accomplishing this.

Setting the Schedule for TxClient

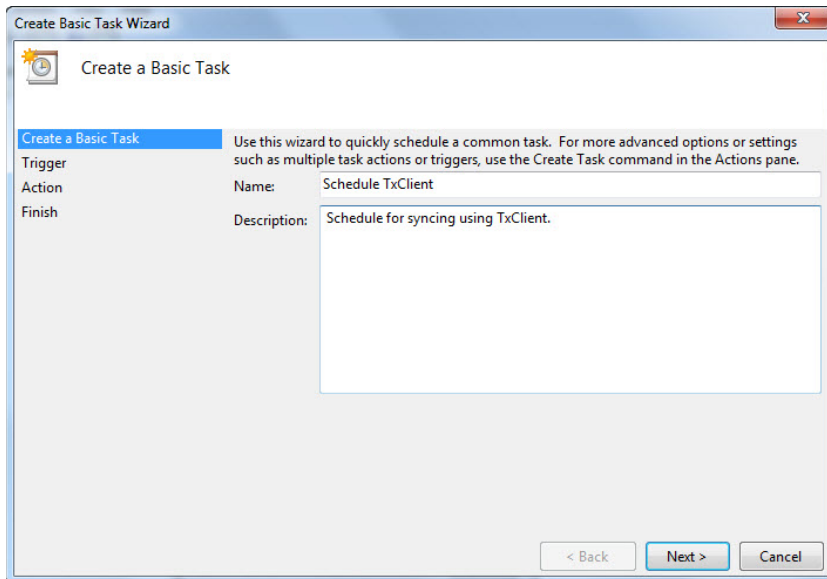
The interval at which the TxClient processes connect to the TxServer depends on many factors. In general, it is best to connect as often as possible. A typical setup would have each store location run TxClient every 30 minutes. It might be a good idea to stagger the connection times slightly so that all stores are not trying to hit the server at once.

The schedule for running the TxClient is set through operating system utilities. In this example, all illustrations are from Windows 7 Task Scheduler. The process is similar for other versions of Windows, but might differ in the details. To set up the schedule:

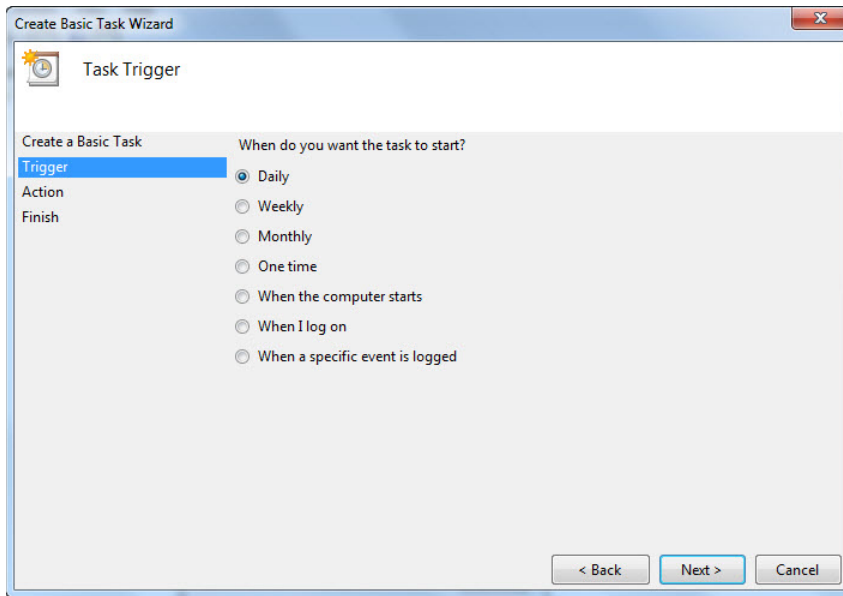
1. From the Windows **Start** menu, select **Control Panel**. The **Control Panel** will appear.
2. From the **Control Panel**, select **Administrative Tools**. Windows Explorer will open with a list of administrative tools.
3. Select **Task Scheduler**. The **Task Scheduler** will appear.



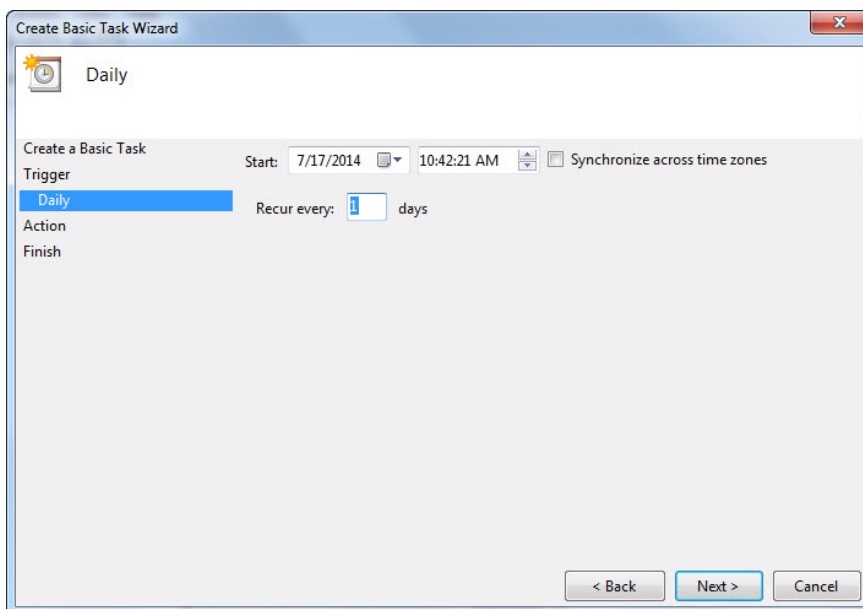
- From the **Actions** pane, select **Create Basic Task...**. The **Create Basic Task Wizard** will open.



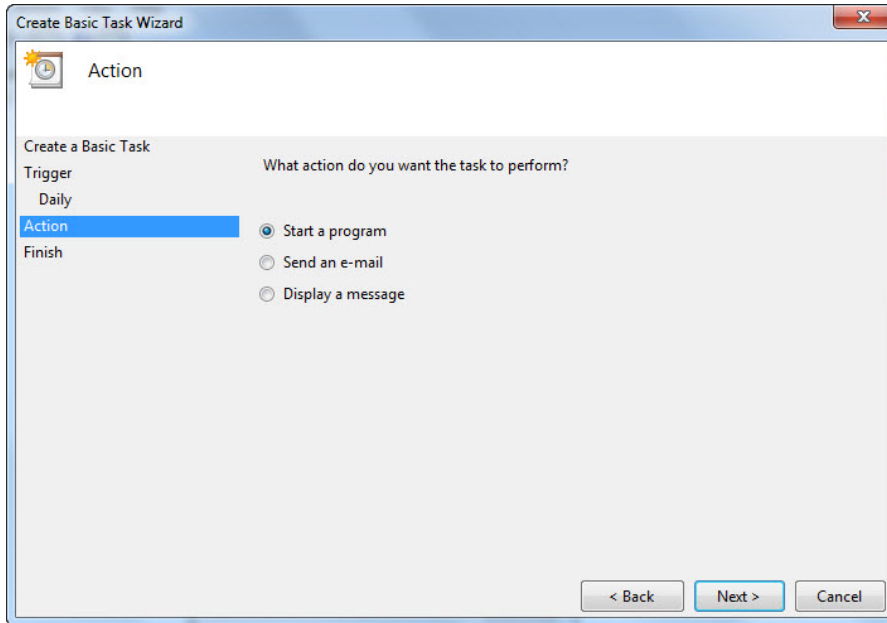
- Enter a task name and description.
- Select **Next**. The **Create Basic Task, Task Trigger** screen will appear.



7. Select **Daily**.
8. Select **Next**. The **Create Basic Task Wizard, Daily** screen will offer more detailed timing.

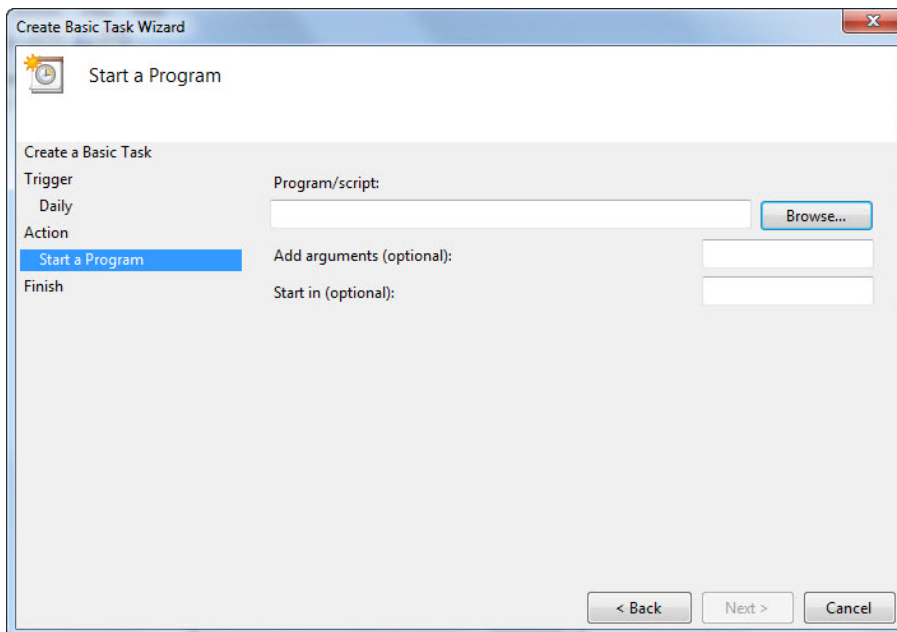


9. Select a start date and time, which should be today. For time of day, we recommend 3:00 a.m.
10. Accept the default of **Recur every 1 days**.
11. Select **Next**. The **Create Bask Task Wizard, Action** screen will appear.

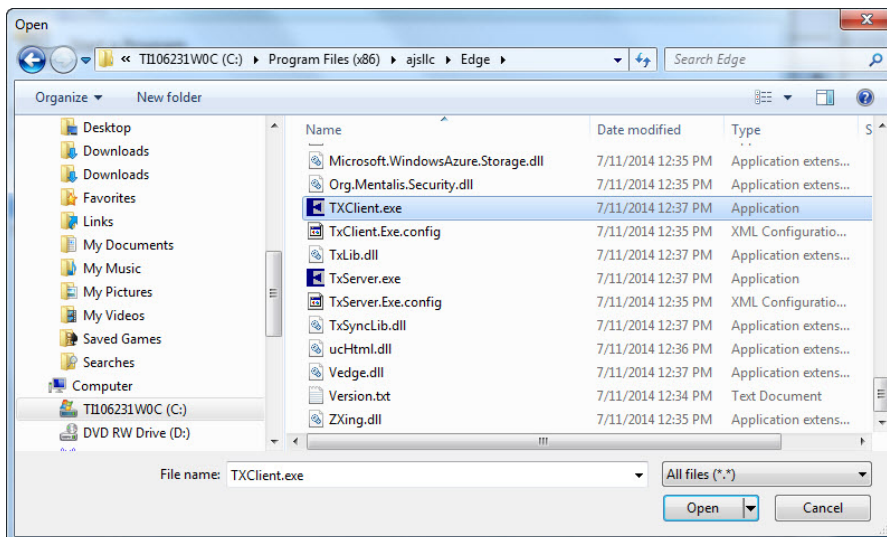


12. Select **Start a program**.

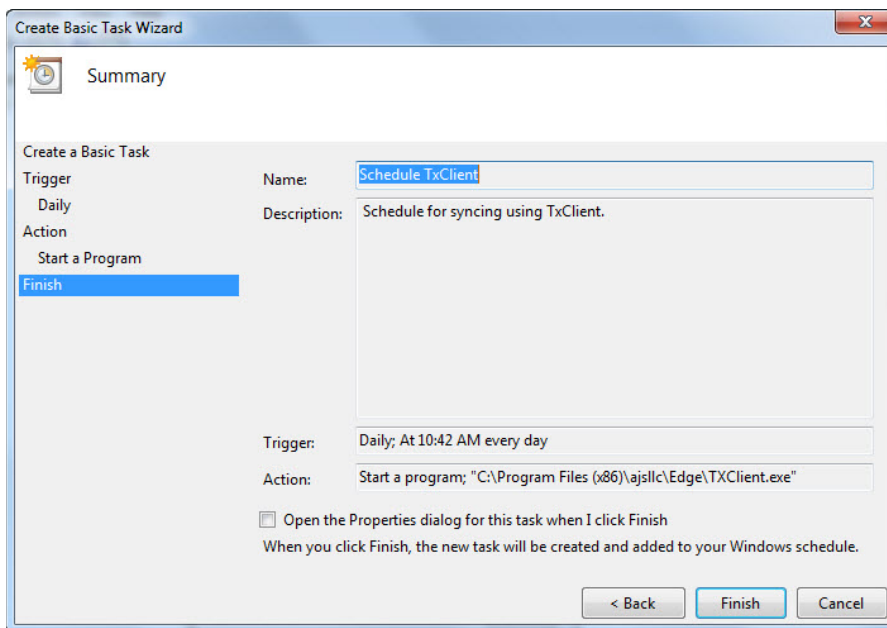
13. Select **Next**. The **Create Basic Task Wizard, Start a Program** screen will appear.



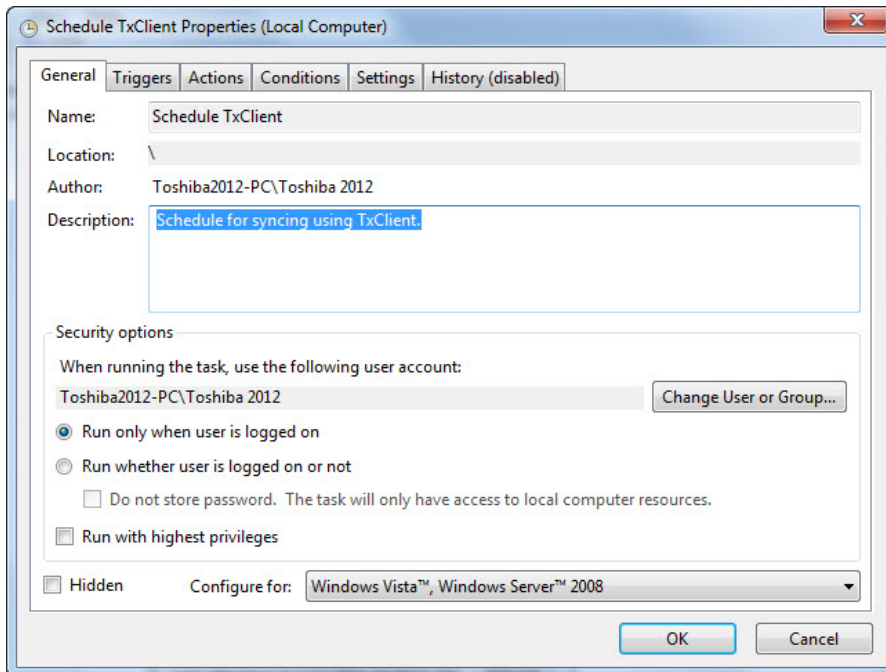
14. Select **Browse**. You will be offered a standard **Open** dialog to browse for the executable you want to set.



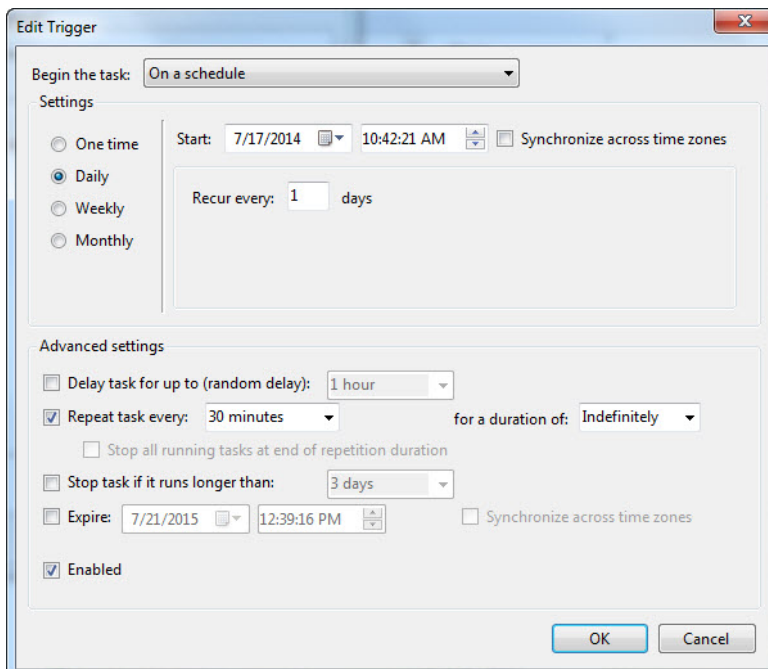
15. Navigate to the folder that contains the TxClient program.
 - For version 6.0, the path is `c:\ProgramFiles(x86)\ajsllc\edge\txclient.exe`
 - For 5.2 and below, the path is `c:\ProgramFiles(x86)\ajsllc\edgetx\txclient.exe`.
16. Select the correct folder and select **Open**. The **Create Basic Task Wizard, Start a Program** screen will confirm the selection.
17. Select **Next**. The **Create Basic Task Wizard, Summary** screen will appear.



18. Enable the **Open Properties dialog for this task when I click Finish** option.
19. Select **Finish**. The Edge's **TxClient** task properties screen will appear with the **Task** tab open, which is complete. The **Schedule TxClient Properties** window appear with the **General** tab open.



20. Because of Windows 10 updates, **Do not store password** should be unchecked.
21. Enable **Run whether user is logged on or not**.
22. Select the **Triggers** tab and select **Edit**.



23. Select the option to **Repeat Task Every:** and enter 30 minutes and **for a duration of:**, select Indefinitely.

24. Select **OK**. The **Scheduled Task Wizard** will change to prompt for credentials for the local machine. Enter the credentials for the local machine.
25. Select **OK**. The task will now appear in the **Task Scheduler**.
26. Close the **Scheduled Tasks** screen.

Setting the Schedule for TxPhoto

TxPhoto Client

Setting up a Windows task to run TxPhoto Client is similar to that described above. The programs for which tasks should be set up are:

```
"c:\Program Files\ajsllc\EdgeTXPhoto\txPhoto.exe" -Client
```

We recommend that TxPhoto Client be run every hour.

TxPhoto Server

```
"c:\Program Files\ajsllc\EdgeTXPhoto\txPhoto.exe" -Server
```

TxPhoto Server must run at all times without interruption. It should restart each time Windows starts up. The Edge support team has special licenses for third-party software called "Always Up," which is very reliable in accomplishing this.

Troubleshooting

In most cases, TxClient and TxServer will log all errors to TxClient.log and TxServer.log, respectively, in their root folder. If the contents of these log files does not suggest a clear action to you, then contact The Edge technical support for assistance.

If TxServer and TxClient appear to be running correctly, yet your databases are not synchronized, first ensure that your connectivity (DSL, cable, or dial-up) is working properly. If your connectivity appears to be working, then call The Edge technical support for assistance.

If your databases are getting synchronized, but not frequently enough, then within the Windows Task Scheduler, adjust the start time and/or repeat interval for TxClient in each store.

If the normal operation of TxClient impacts the performance of store operations:

- Ensure that TxClient is running on only one PC in the store.
- Ensure that TxClient is running on the same PC on which The Edge database is located.
- Adjust the task properties of the TxClient task to avoid running TxClient during the busiest hours of store operation.

If, for any reason, TxServer seems to have stopped running, rebooting the PC on which it runs will restart it. If TxServer continues to crash, contact The Edge technical support for assistance.

FAQs

Q. Is dynamic DNS adequate as an alternative to a static IP?

A. Yes, as long as it is reliable.

Q. Can we use our store's current VPN instead of subscribing to a static IP?

A. Yes, a reliable VPN is a good solution for multi-store. Have your technician contact The Edge support to coordinate the transfer setup and be available for installation appointment.

Q. If I am running TxServer in the Windows task scheduler, can I synchronize manually and off-schedule?

A. Yes. If you wish to transfer a record without waiting for the scheduler to cycle, you can manually synchronize The Edge by running the process executable: `\ProgramFiles (x86)\ajsllc\edge\txclient.exe`. Do this at both the sending and receiving stores. Example: If you added a brand new item at Store 1 and need it to be available right away at store 2, do the following:

1. At store 1, add the item.
2. At store 1, run the process executable: `\ProgramFiles (x86)\ajsllc\edge\txclient.exe`.
3. At store 2, run the process executable: `\ProgramFiles (x86)\ajsllc\edge\txclient.exe`.
4. At store 2, look up the item, it should now be available.