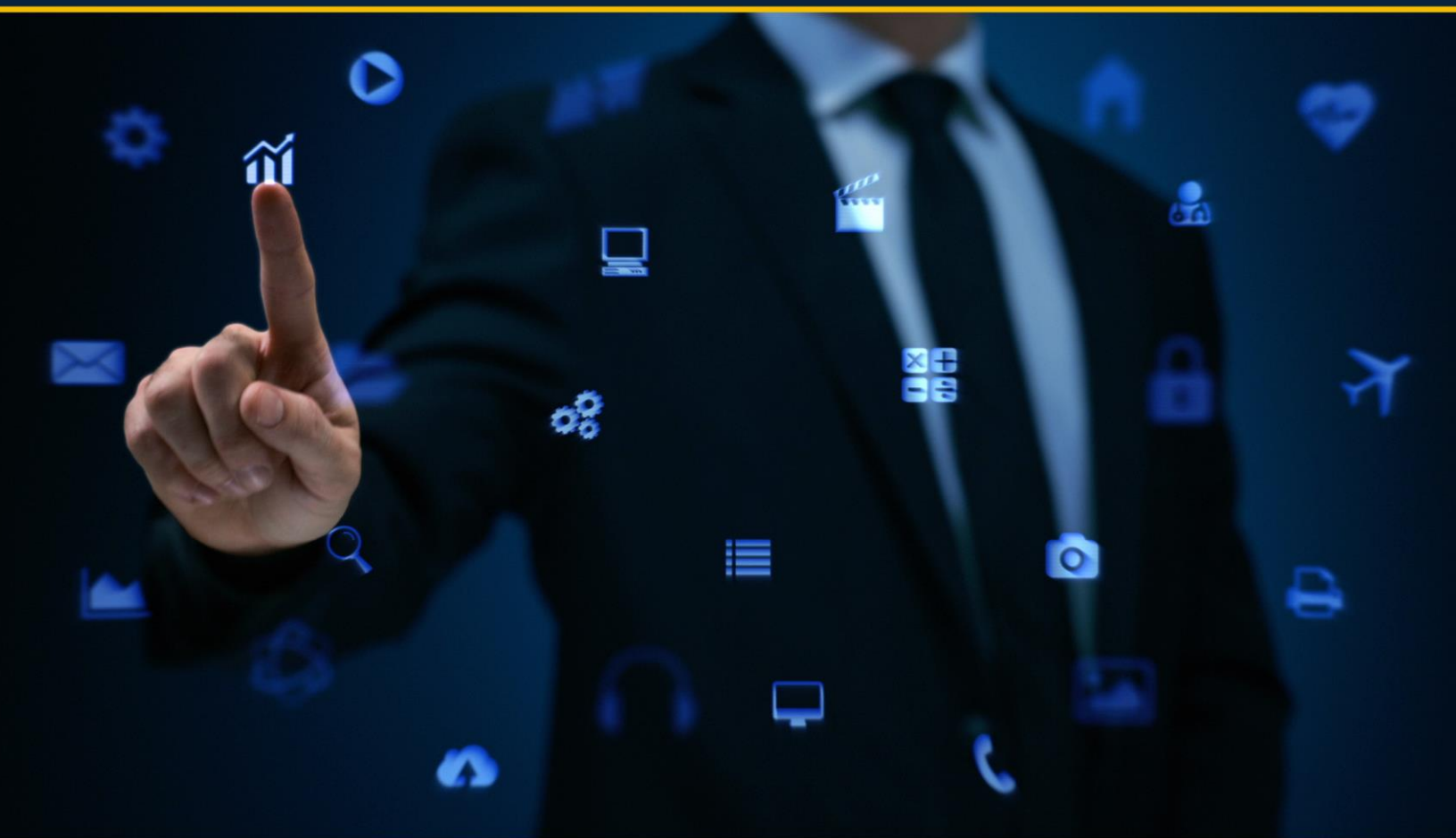




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UP2DATA

INSTALLATION MANUAL

Revision History

Task	Date	Version	Description	Owner	Expiration
Creation	10/26/2017	1.0	First draft	B3 Data Team	1 month
Review	11/8/2017	1.1	Review	B3 Data Team	3 months
Review	11/22/2017	1.2	Review	B3 Data Team	3 months
Review	1/17/2018	1.3	Review	B3 Data Team	3 months

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1.UP2DATA

The **UP2DATA Client** is a Windows service that provides organized, consolidated, standardized, early end-of-day (EOD) data and reference data from B3. Such data will be transmitted through software and provided according to the closing or end of the trading day of each market with monitored delivery.

2. Hardware, Internet, Software and Security Requirements

Before proceeding with the **UP2DATA Client** installation, it is important to fulfill the following hardware, software, and security requirements.

Minimum Hardware and Internet Requirements

- Processor: 2 GHz
- RAM: 2 GB
- Disk space: 10 GB
- 2 Mbps minimum bandwidth

Software Requirements

The following OS and platforms are supported:

OS	Supported Platforms
Windows 10	32-bit and 64-bit
Windows 8.1	32-bit and 64-bit
Windows 8	32-bit and 64-bit
Windows 7 SP1	32-bit and 64-bit
Windows Server 2016	64-bit
Windows Server 2012 R2	64-bit
Windows Server 2012	64-bit
Windows Server 2008 R2 SP1	64-bit

The equipment should be installed with .Net Framework 4.5.2 or higher.

Security Requirements

Connection to the **UP2DATA** service requires the following security features:

- Firewall and/or proxy access permission on port 443 under TCP protocol to the following addresses:
 - Production Environment:
 - <https://up2data.b3.com.br>

- IP: 45.60.127.246

- The installation must be performed by a user with local administrator access in the equipment, with writing permission in the system's Registry Editor and authorization for digital certificate installation.
- Address, port, user, and proxy password, if applicable. The application is not supported in reverse proxy environments.
- Release of installation executable in the antivirus setting, if applicable.
- The user responsible for starting the Windows Service must have writing permission to create folders, subfolders and files in the chosen directory for automatic download of data available through the **UP2DATA** service.
- It is recommended that the user account to be set up for Windows Service startup is a service-specific account not subject to regular password change policies. The user must have access permission to the above listed addresses, log on as a service permission, and be properly set up if a proxy is used.

3. UP2DATA Client Installation

After validating all of the above requirements, please follow the steps listed below for the **UP2DATA Client** installation:

- Download the installer using the following link: (<https://up2data.b3.com.br/install>)
- There is a single installer for all supported OS and platforms (32 or 64-bit).
- After downloading the zipped file **Up2Data.Install.zip**, extract the file **Up2Data.Install.exe** to a folder chosen by the user.
- Double-click the application to run it within the same directory where the **Up2Data.Install.exe** file was extracted.

Then, the installer will:

- Automatically create a "log" subfolder in the same directory where the **Up2Data.Install.exe** file was extracted and will record all the installation steps, as well as potential failures occurred during the installation process, and will guide the user through the **UP2DATA Client** installation process.

Step-by-Step Installation

In the home screen, two key requirements are validated and are mandatory to proceed with the installation process.

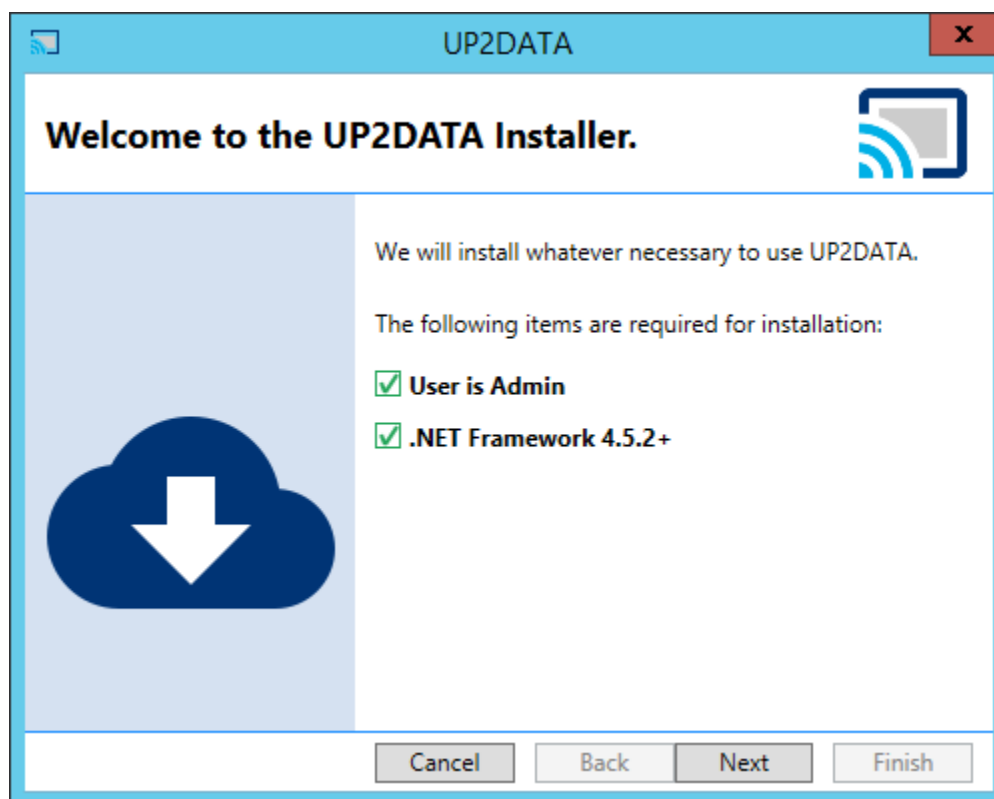


Figure 1 - Home screen

If the conditions required for installation are met, the **<Next>** button will be highlighted.

The following screen will show the Terms of Use of the **UP2DATA** Service. Please read the whole document before proceeding, and if you agree to the terms, click on the option "I have read and accept the Terms of Use of the service". If you do not agree to the terms or have any doubts on any particular item, please contact up2data@b3.com.br and click **<Cancel>** to stop the installation.

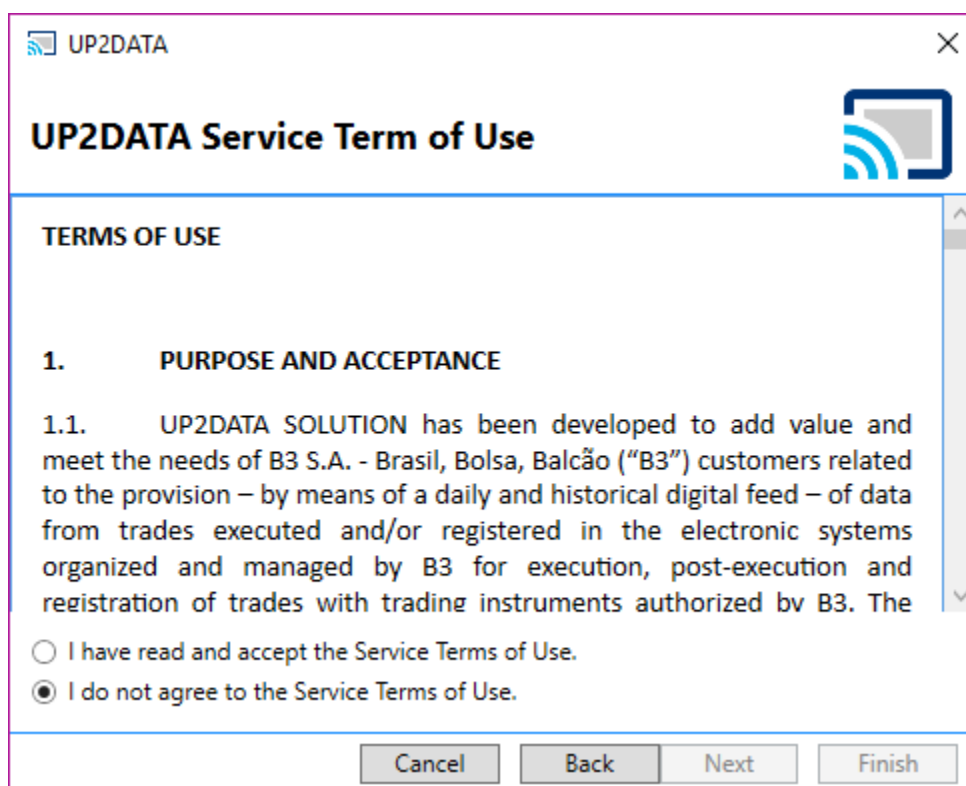


Figure 2 - Terms of Use - I disagree

After accepting the terms of use, click **<Next>** to proceed with the **UP2DATA Client** installation process.

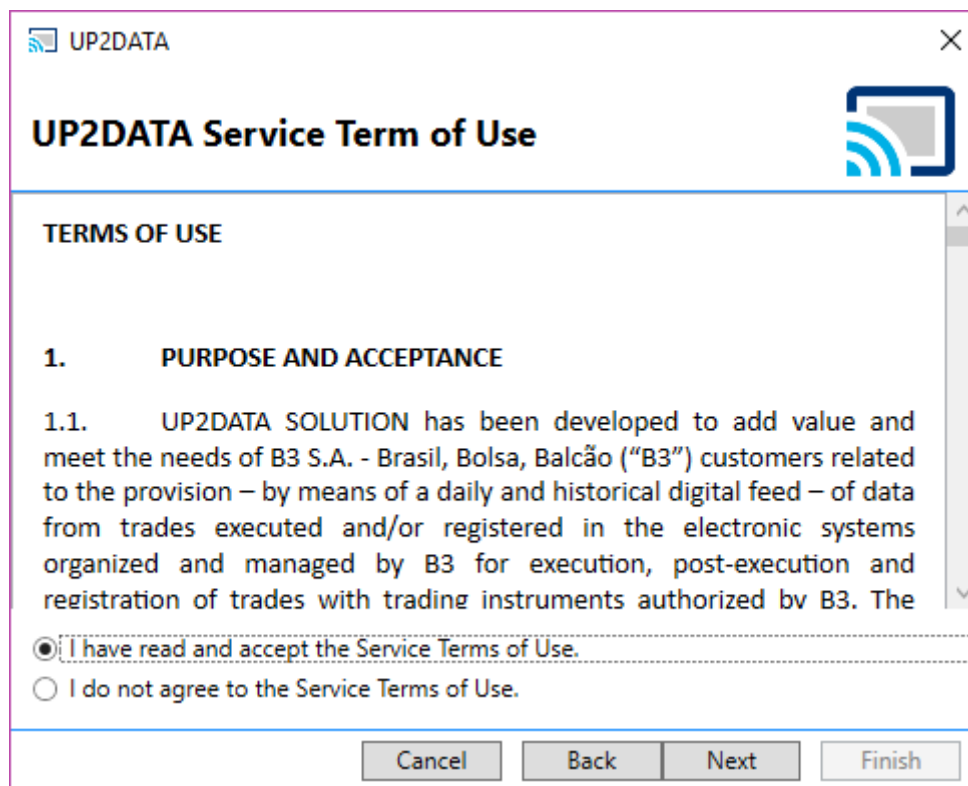


Figure 3 - Terms of Use - Acceptance

In the following installation screen, the user must enter the application key that was sent by email.

The supplied key can only be installed on a single computer. If the same key has already been installed on another computer, the installation process will fail. To reuse the same key, you must uninstall it from the previous computer before proceeding with the installation. For a step-by-step uninstall, please refer to section 4 in this Manual.

The key is automatically validated after being entered in the field. If the key is valid, the **<Next>** button will be shown. The certification environment key is different from the production environment key. It is not possible to have both environments (certification and production) installed on the same computer and, therefore, it is mandatory to uninstall the application before changing environments.

If the key is invalid and not installed on another computer, you will not be able to proceed with the installation process. In this case, please contact B3 Support via email (up2data@b3.com.br).

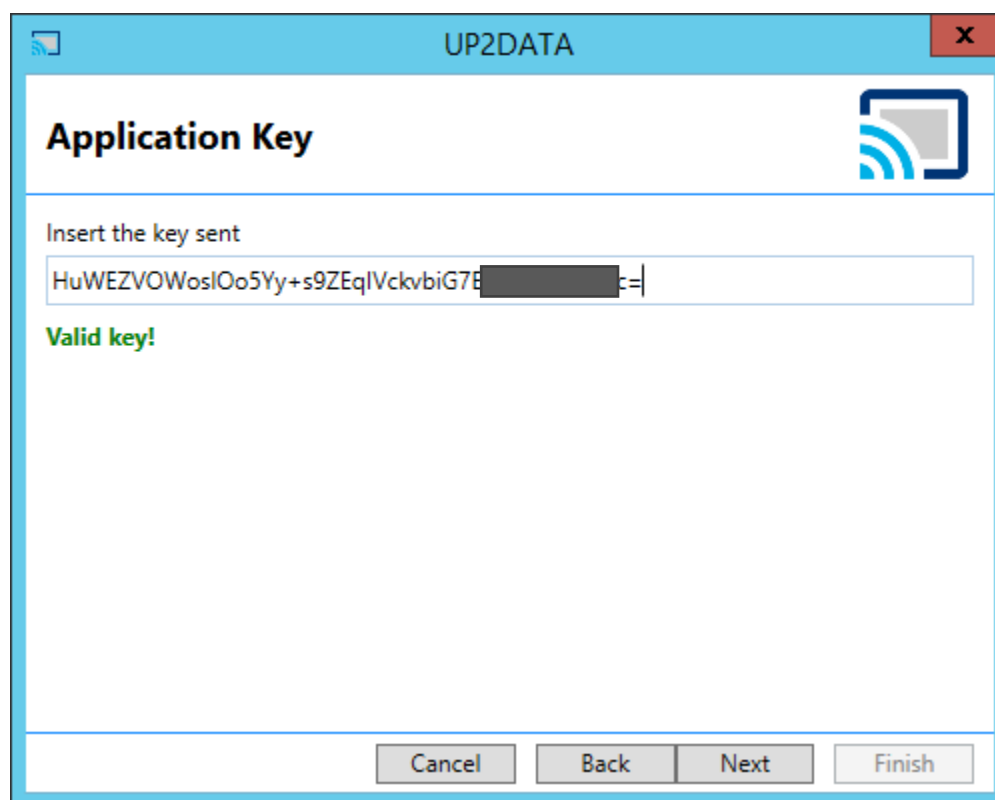


Figure 4 - Application key entry screen

In the following installation screen, the user will define the application installation folder, the location to save the files sent by UP2DATA, and the folder template that the user wishes to use.

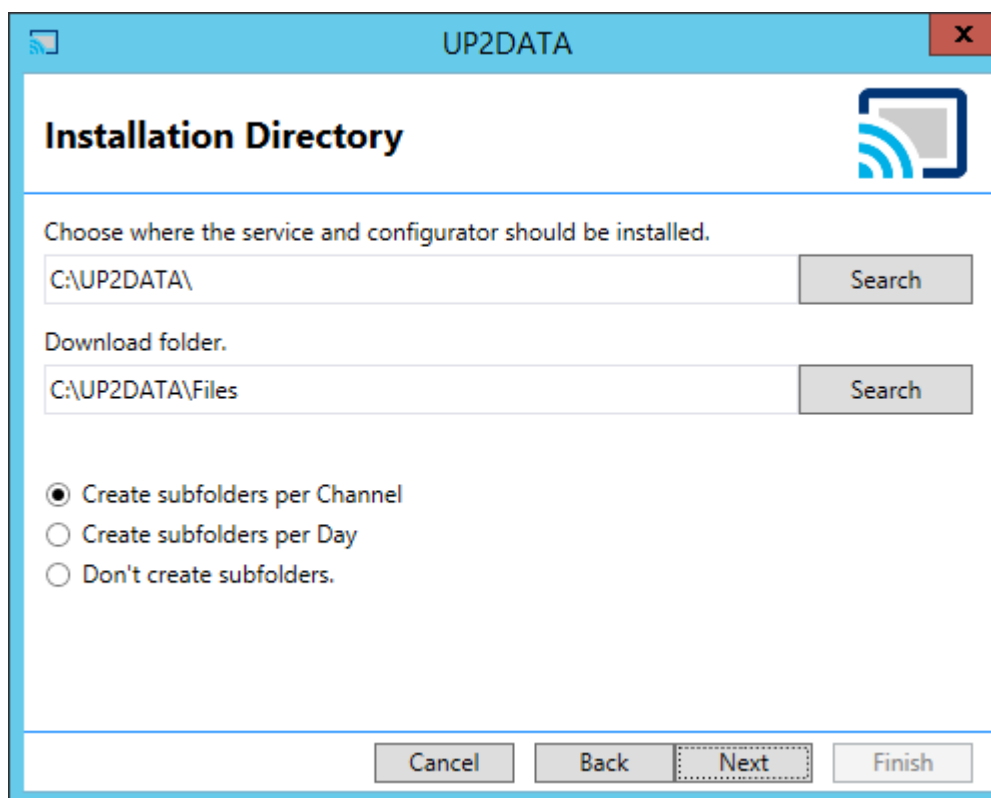


Figure 5 - Directory and Folder definition screen for file download

In "Choose where the service and configurator should be installed", the user can choose the directory where the **UP2DATA Client** Windows Service will be installed. By default, it will be installed in C:\UP2DATA\.

In "Download folder", the user can choose the root folder where the data files sent by the **UP2DATA** service must be saved. By default, files will be saved in C:\UP2DATA\Files. The user can save the files to a network server by entering the UNC¹. Windows mapped network drives should not be used.

If the user chooses not to install in the default paths, two new folders must be created before proceeding.

¹UNC: Universal Naming Convention

Once the root folder is defined to save the data files sent by the **UP2DATA** service, the user can choose one out of the following three options available. By default, subfolders will be created for each channel.

- **Create subfolders per channel:** When you select this option for data files sent by the **UP2DATA** service, subfolders will be created per channel; and, within each subfolder per channel a folder will be created with the files publication date.

Example:

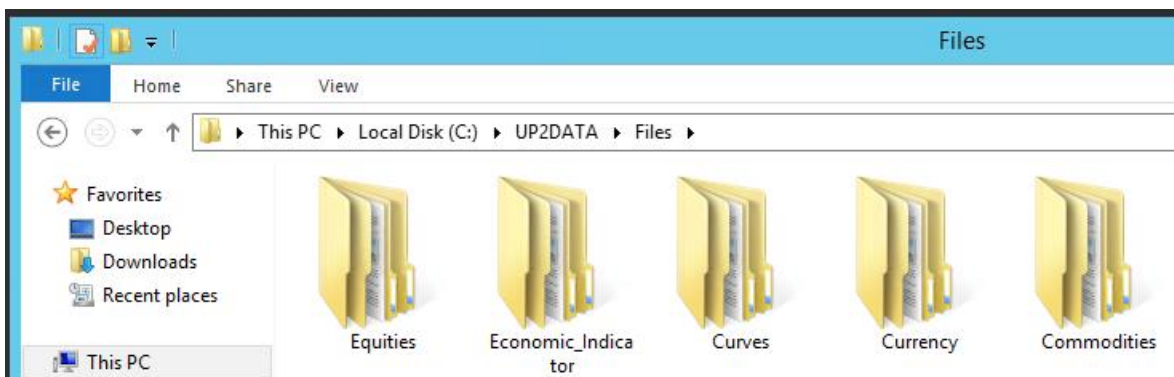


Figure 6 - Folders created for channels

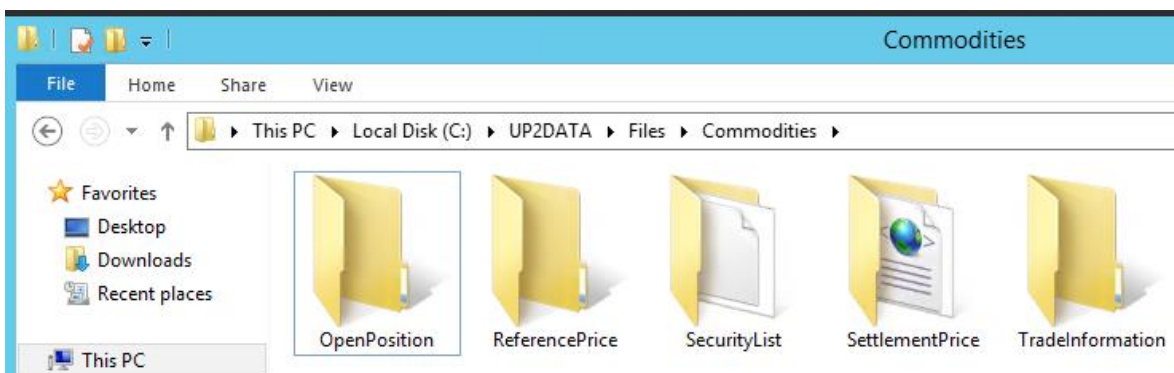


Figure 7 - Folders created for sub-channels

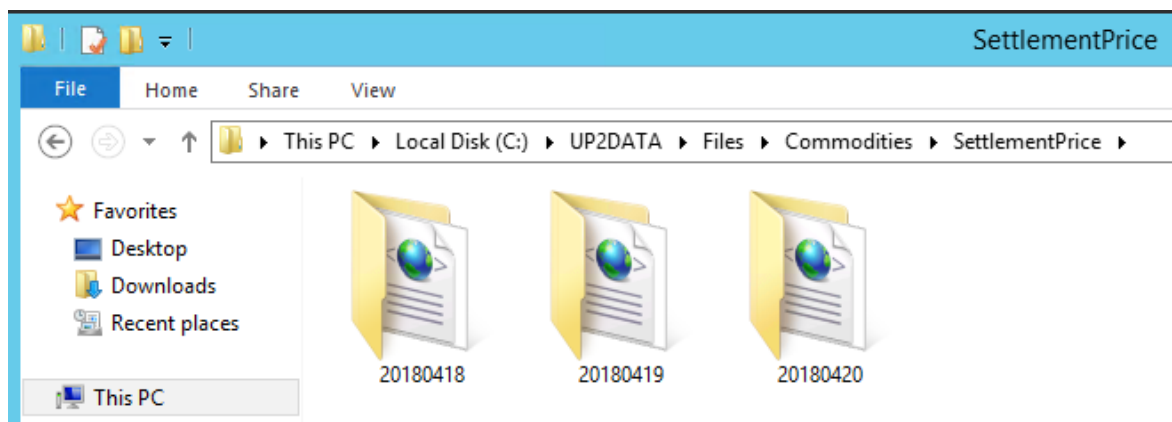


Figure 8 - Folders created for data days within the "Commodities – Settlement Price" channel folder

- **Create subfolders per Day:** This is the opposite process of the "Create subfolders per channel" option. When you select this option for data files sent by the **UP2DATA** service, subfolders will be created per day; and, within each subfolder per day a folder will be created with the channel name.

Example:

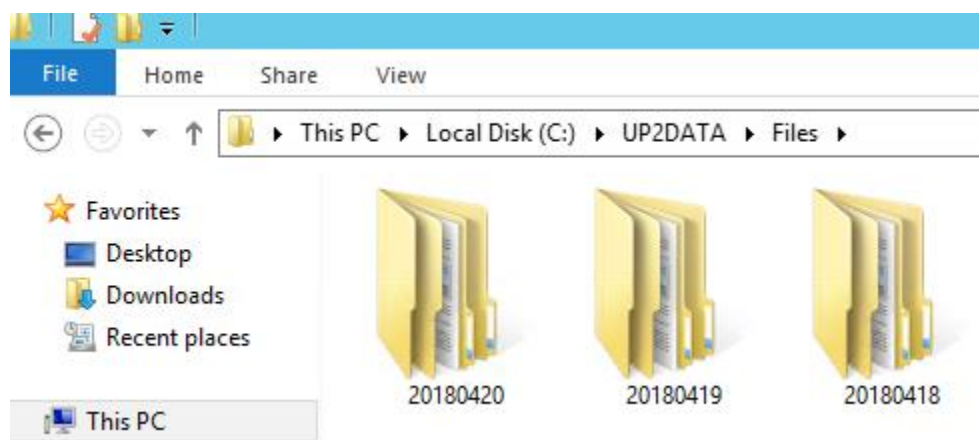


Figure 9 - Folder per day

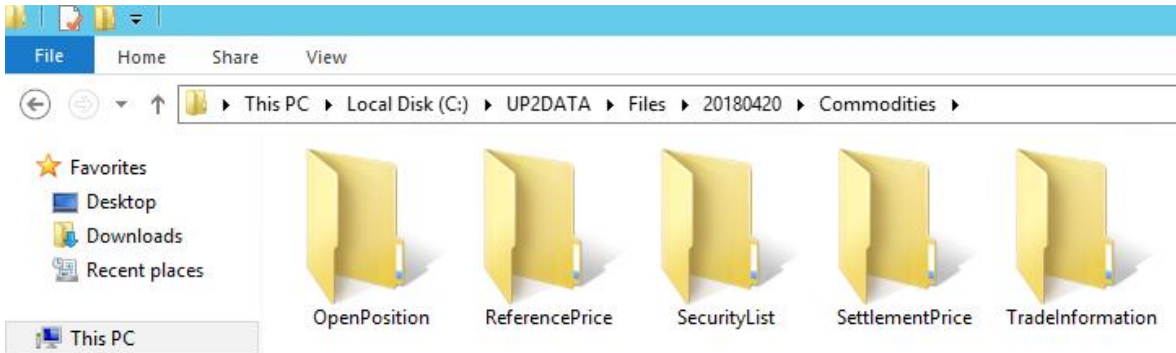


Figure 10 - Folders created for channels within each day

- **Do not create subfolders:** When you select this option, data files sent by the UP2DATA service will be saved without breakdown by date or channels.

Example:

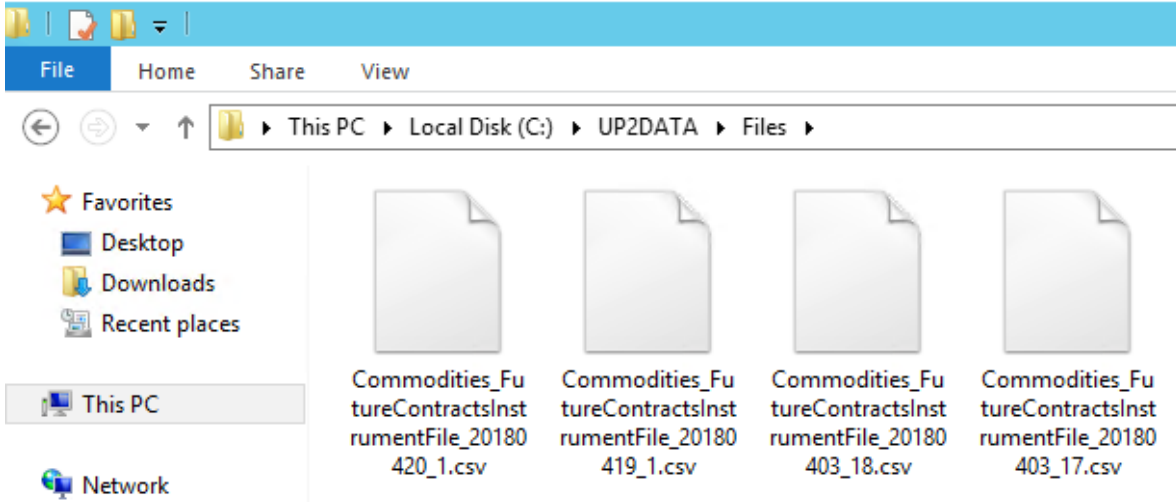


Figure 11 - All files from multiple channels and different days in the same folder

After selecting the folders and choosing the folder creation option, please click **<Next>**.

In the following installation screen, the user will define which **UP2DATA** environment he/she wishes to connect to: the certification environment or the production environment. It should also be defined whether a proxy will be required for connection to the service.

You can check whether the equipment has a proxy by accessing the "Control Panel" and clicking on "Internet Options".

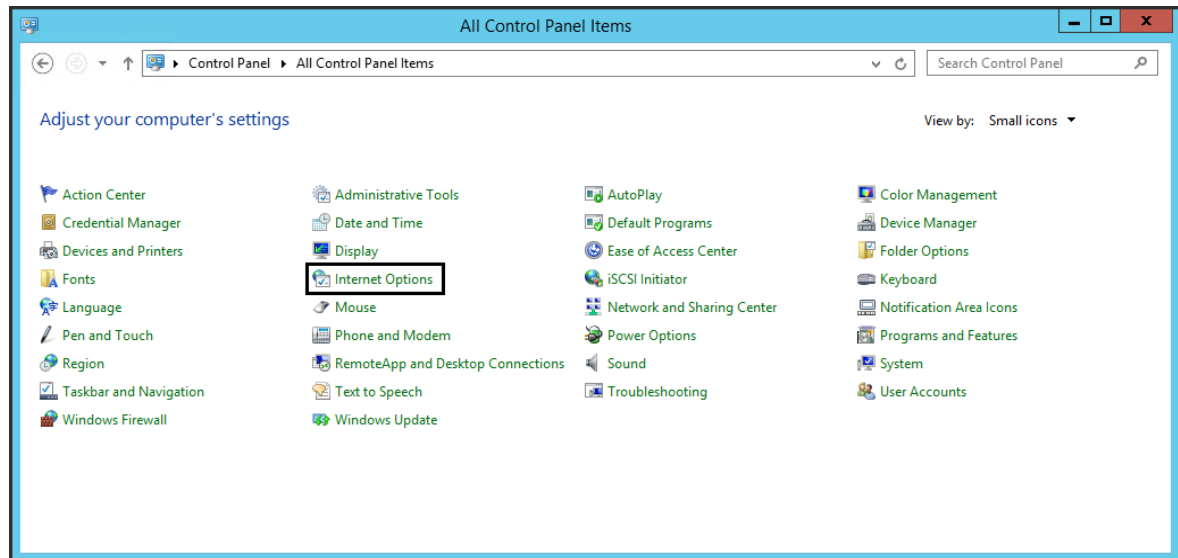


Figure 12 - Control Panel

Select the "Connections" tab and then click "LAN Settings":

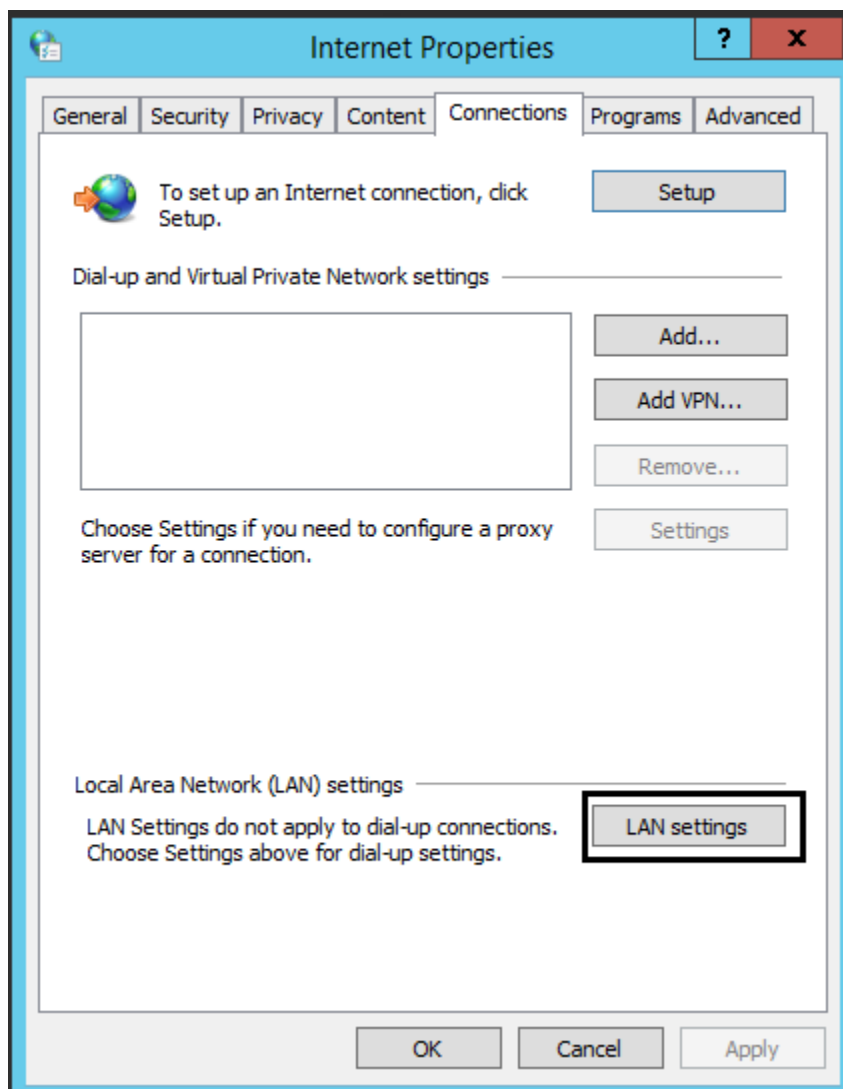


Figure 13 - Internet properties - Connections tab

There are four Proxy setup options:

- **No proxy:** If the internet outbound is through a router or network firewall (default gateway), without the need to set up a proxy, the LAN settings options (LAN) must show the following setup:

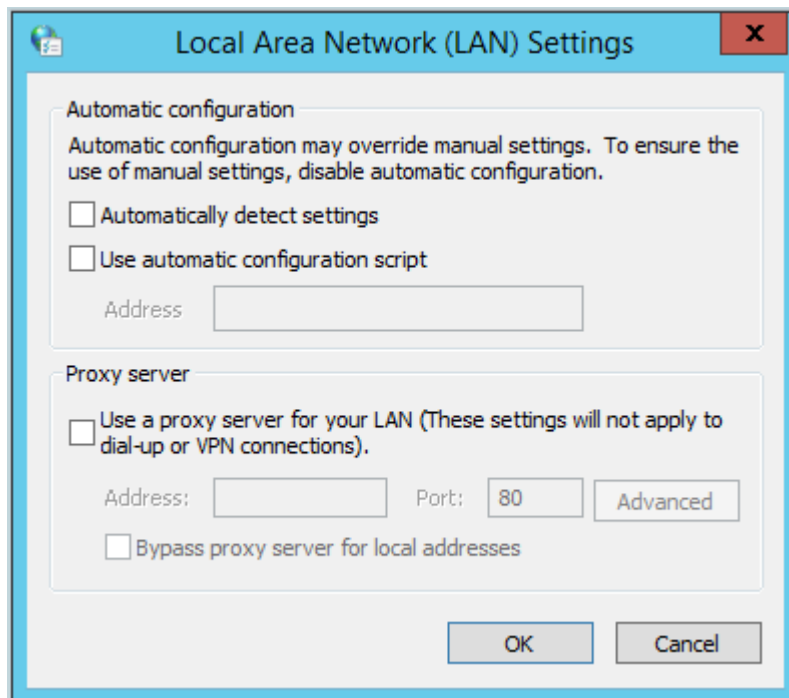


Figure 14 - Local Area Network (LAN) settings

In this case, choose "Without proxy" in the installer:

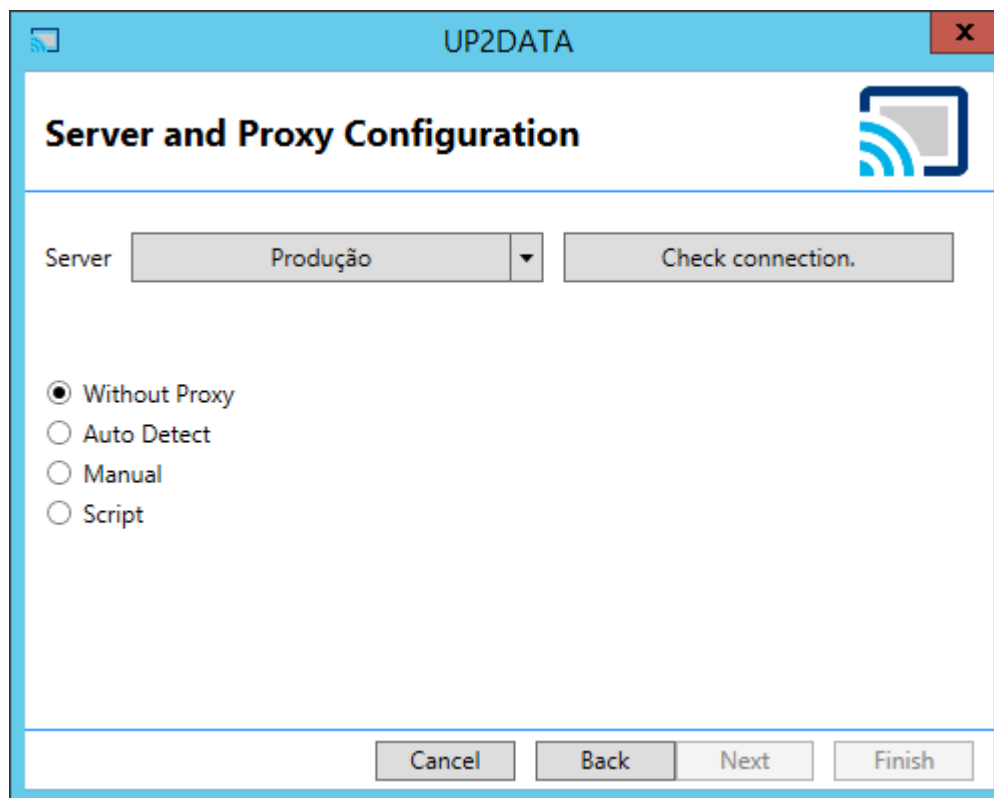


Figure 15 - Installation using the "Without proxy" connection option

- **Automatically detect:** If the internet outbound is already working with the current settings, the application will automatically inherit the setup. When the proxy requires authentication for browsing, check the "Does the proxy server require password?" option and enter the user and password for authentication. In the Local Area Network (LAN) settings options, you should have the following setup:

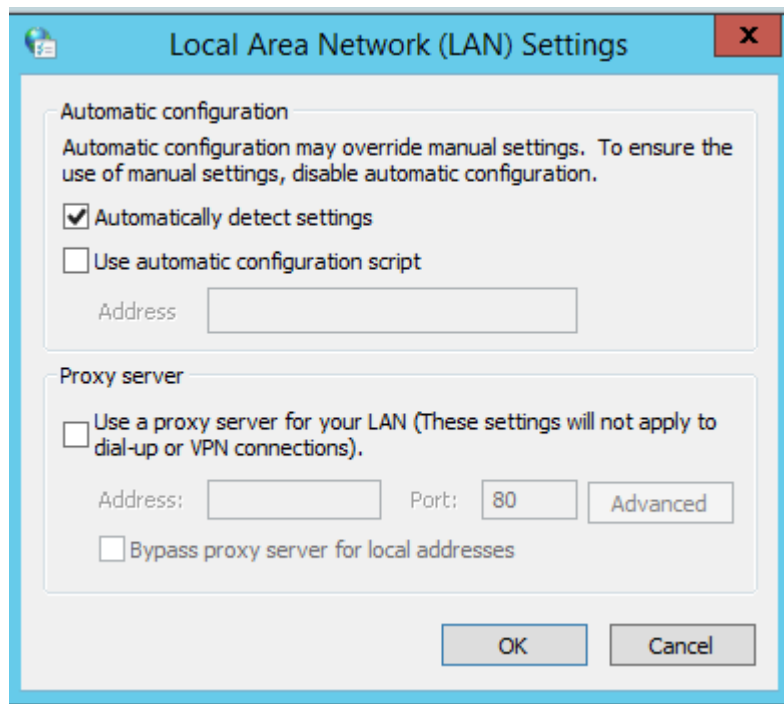


Figure 16 - Local Area Network (LAN) settings with automatic detection

In this case, choose "Auto Detect" in the installer:

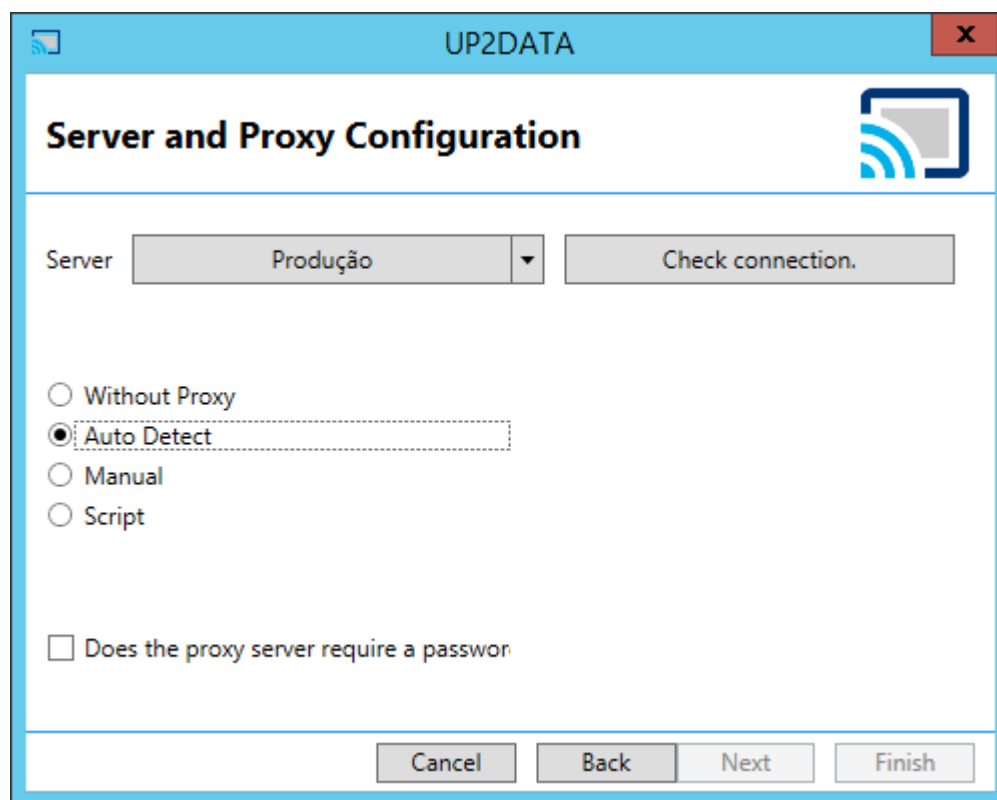


Figure 17 - Installation using the "Auto Detect" connection option

- **Manual connection:** If the internet outbound relies on a proxy and is provided specifically for the service account, enter the proxy address and port. When the proxy requires authentication to allow the connection, you must check the "Does the proxy server require password?" option and enter the user and password for authentication. The Local Area Network (LAN) settings options should show the following setup:

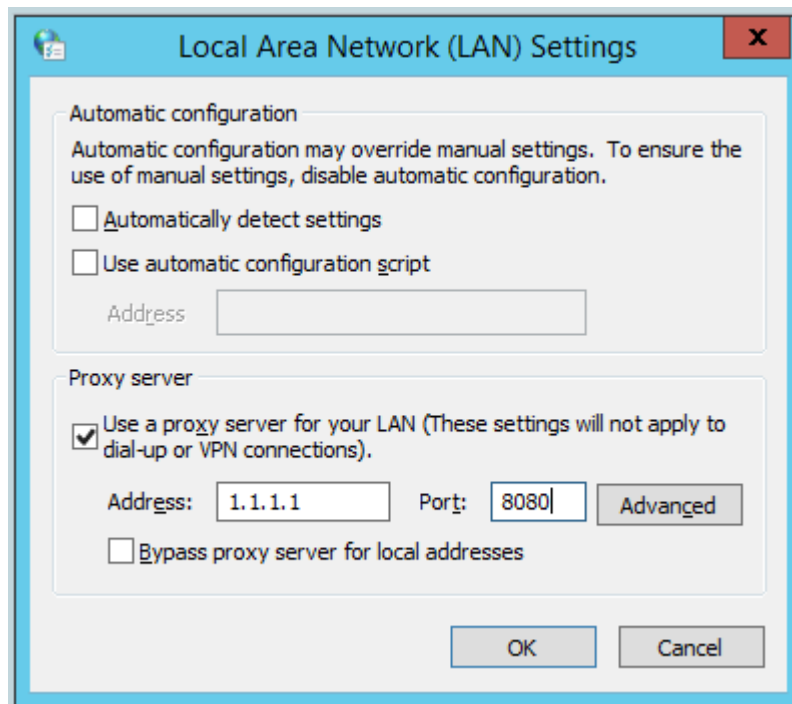


Figure 18 - Local Area Network (LAN) settings using manual proxy

In this case, choose the "Manual" option in the installer and enter the required proxy address and port information, as well as authentication details, if necessary:

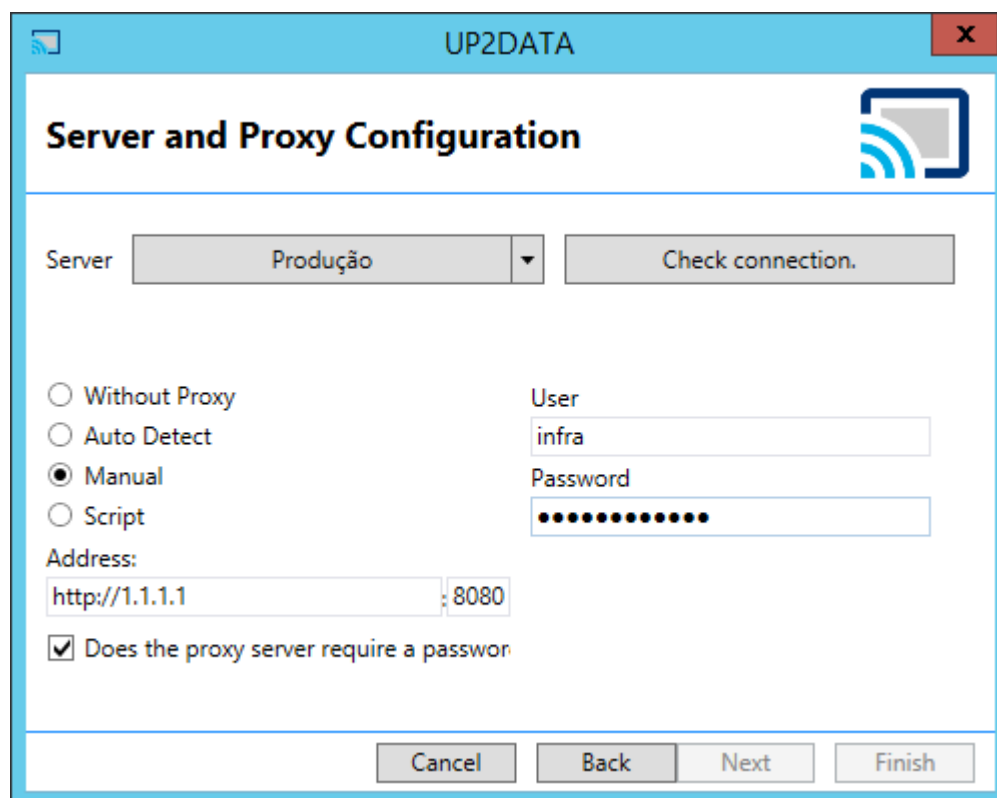


Figure 19 - Installation using the "Manual" connection option

- **Script:** if the internet outbound uses an automatic setup script. When the proxy requires authentication for browsing, you must check the "Does the proxy server require password?" option and enter the user and password for authentication. In the local network (LAN) settings options, you should have the following setup:

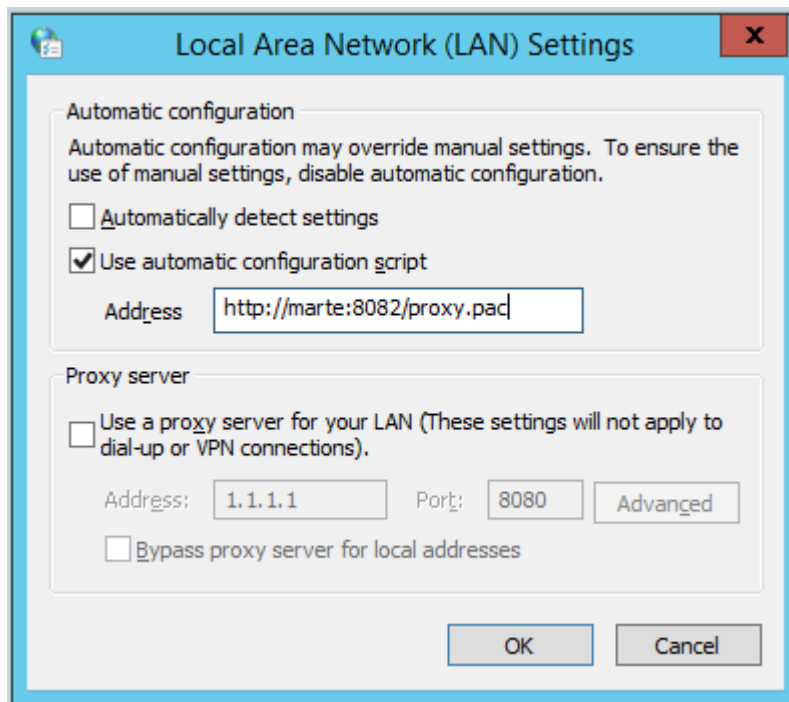


Figure 20 - Local Area Network (LAN) settings with automatic setup script

In this case, please choose "Script" in the installer:

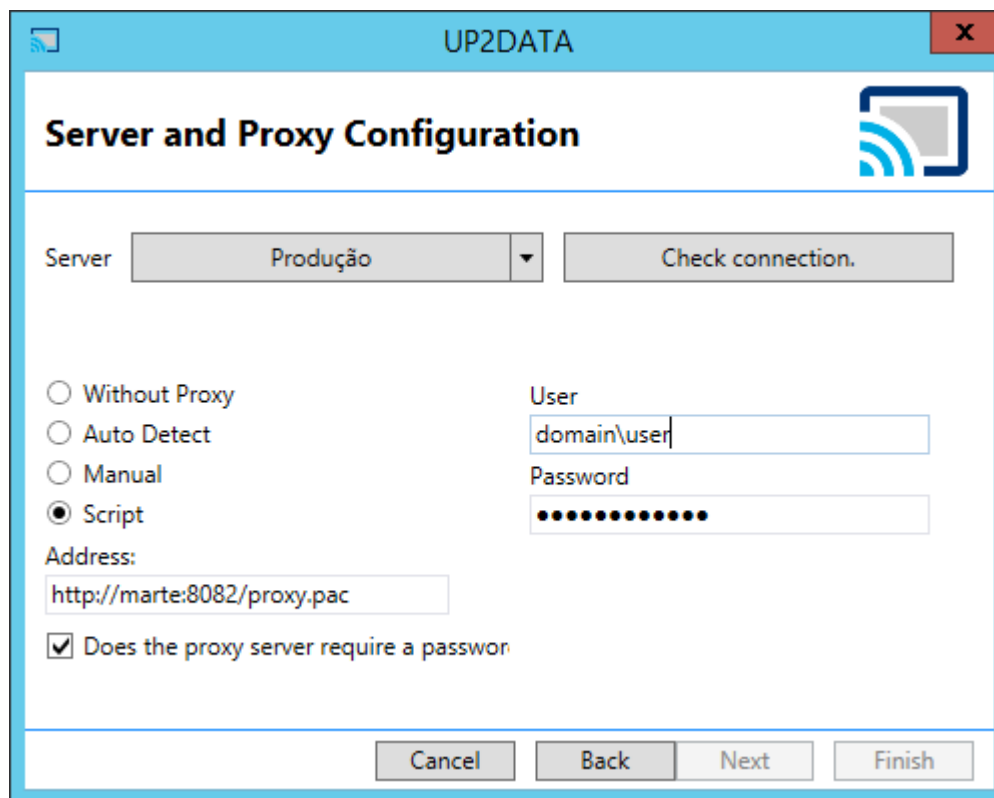


Figure 21 - Installation using the "Script" connection option

After setting the Proxy type, click on **<Check Connection>** to confirm that the selected setup meets the requirement to release the addresses and IPs mentioned in Section 2 of this Manual. The **<Next>** button will only be enabled upon a valid connection to the **UP2DATA** service servers. To proceed with the installation, click **<Next>**.

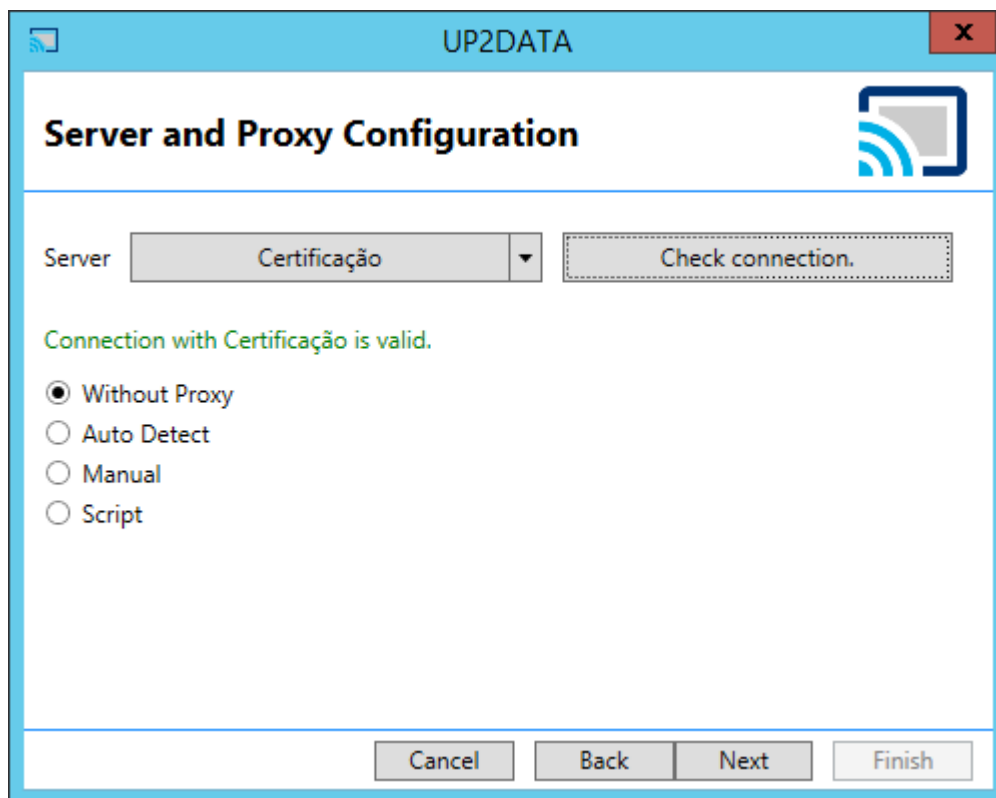


Figure 22 - Validate the connection with the UP2DATA service

If the connection validation fails, please review the proxy settings, change it in the installer and re-validate the connection. If you still have an error, re-validate in case the port and IPs access requirements were met.

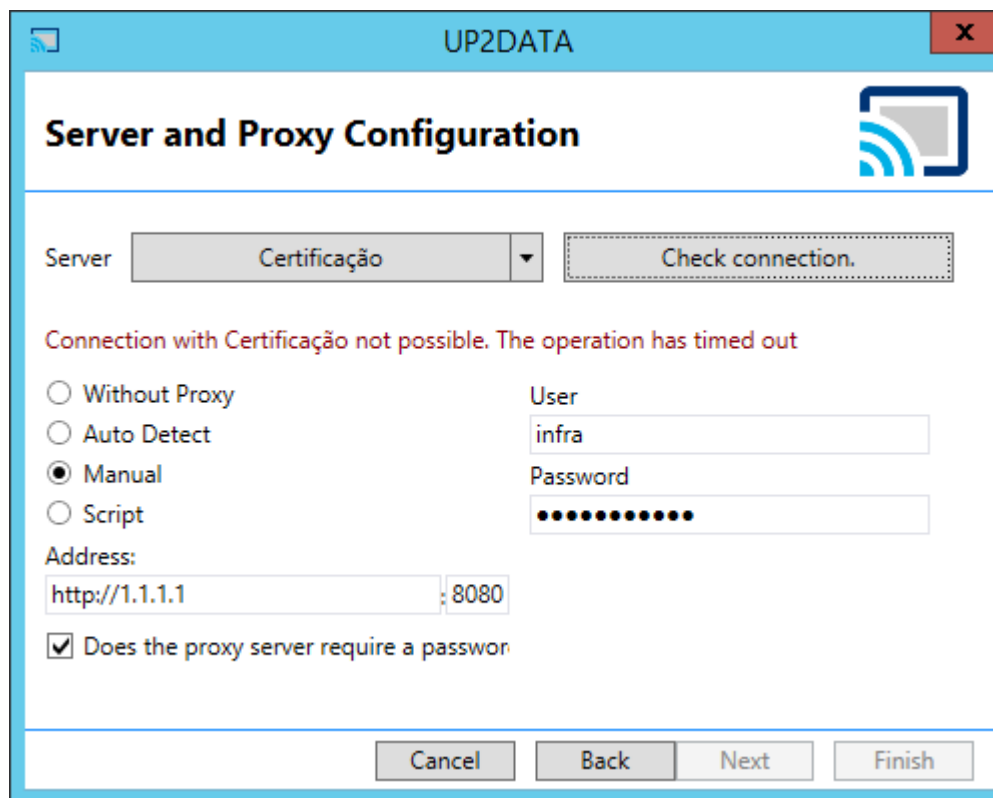


Figure 23 - UP2DATA service connection validation failed

On the next installation screen, the user must define the user with whom the Windows Service should run. Two options are available:

- **Local System Account:** The user will start the Windows **UP2DATA Client** service with the local system account. This option can be used for users who are logged onto the computer and do not use proxy. It is not suitable for installations on servers and/or user equipment with logon through a corporate domain, due to restrictions usually applied to this type of environment.

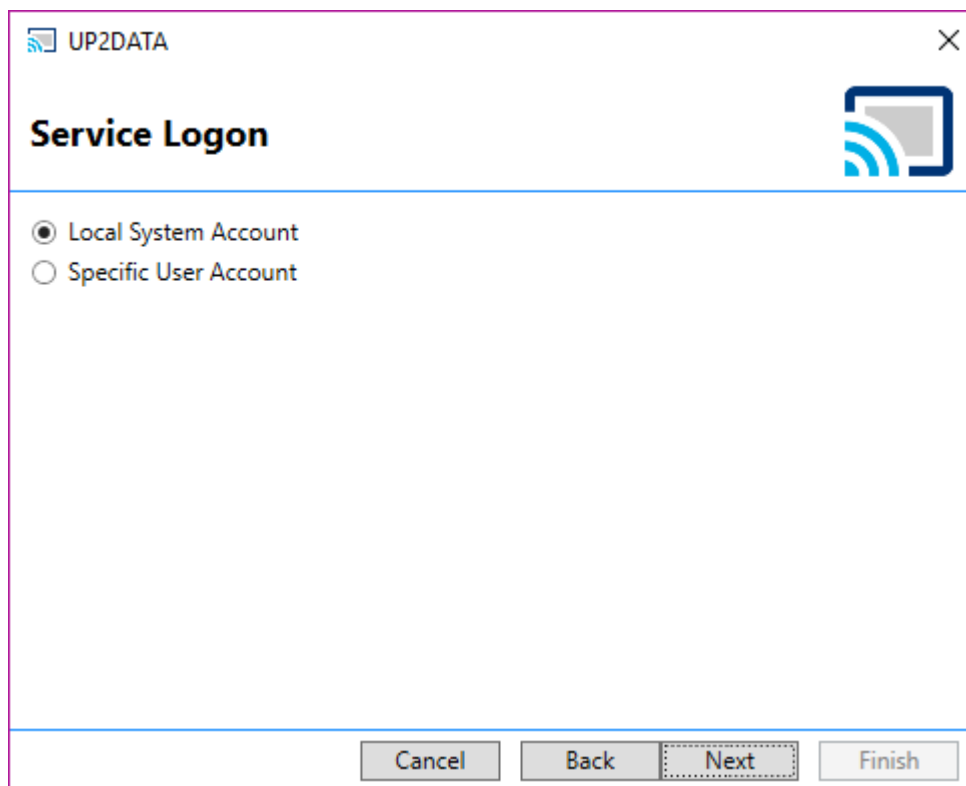


Figure 24 - Service logon setup screen - Local System Account

- **Specific User Account:** The user will start the Windows **UP2DATA Client** service with a specific user account, being either a local equipment account or a domain account. This option is suitable for installations on servers, preferably through a user account that does not require a regular password change. After entering the username and password, click **<Authenticate>** to proceed with the installation. If changing the user and/or password is required after installation, please check how to proceed in Section 6 of this Manual.

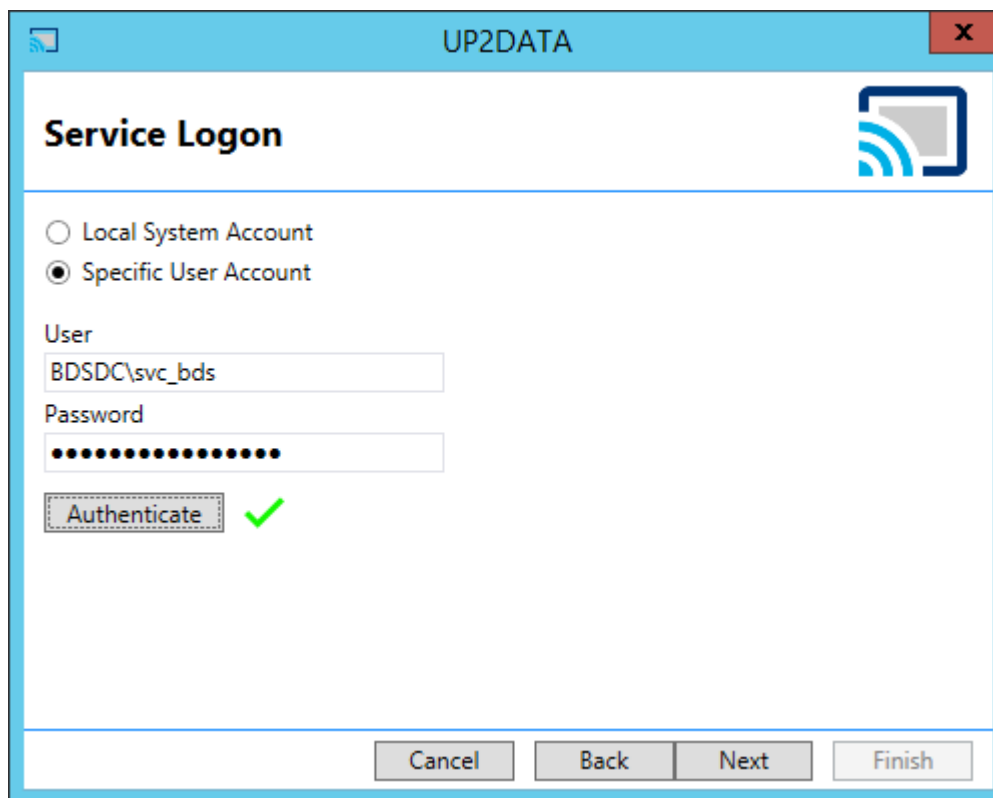


Figure 25 - Service logon setup screen - Specific User Account

In the following screen, the **UP2DATA Client** service installation progress will be displayed and the user just needs to wait for the installation to complete.

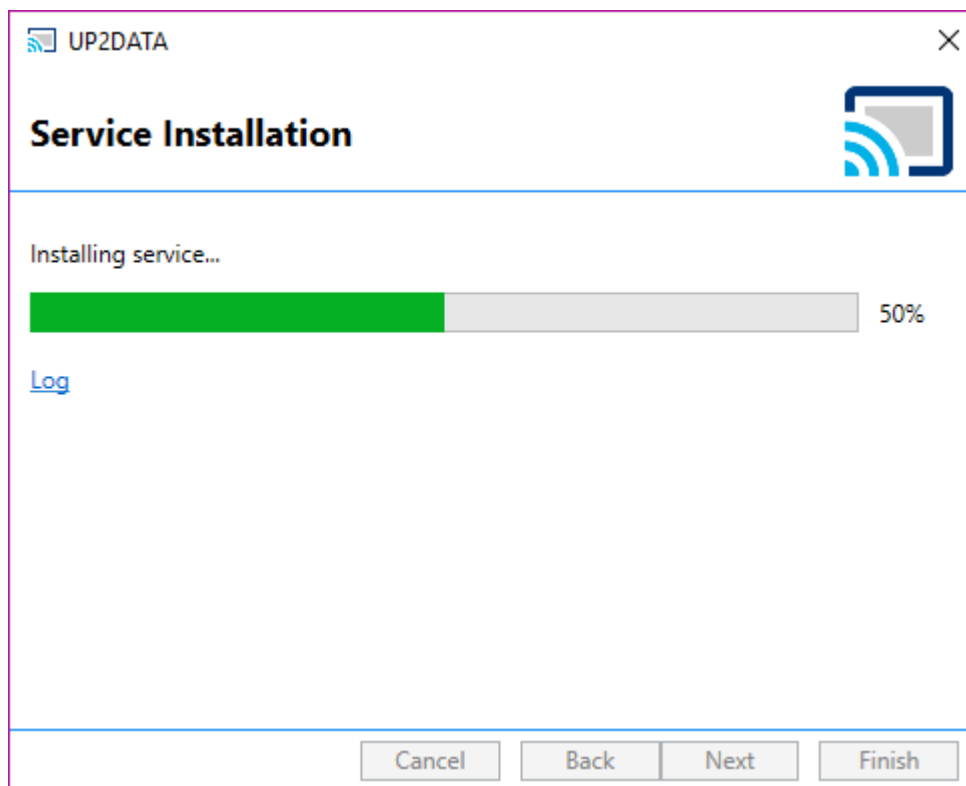


Figure 26 - Service installation progress screen

If the installation process fails, please click the "Open Log" option (Figure 27) and send the content (Figure 28) to the B3 Support team (up2data@b3.com.br).

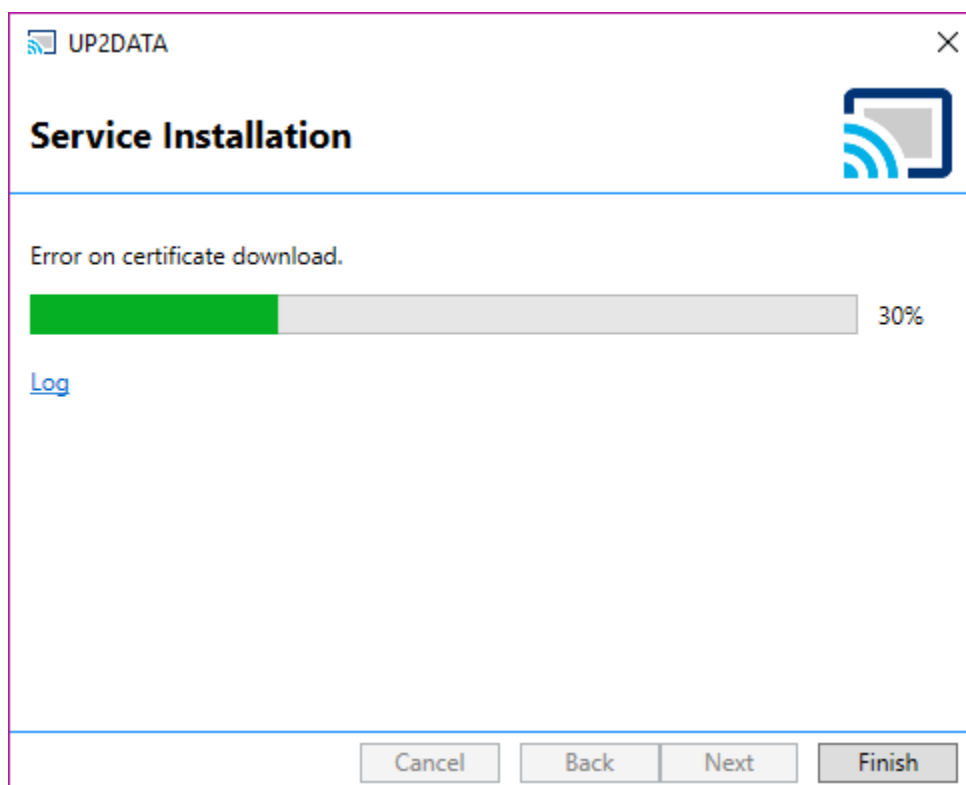


Figure 27 - Service installation screen showing error - Open Log option

```
|2018-04-23 10:58:19.780|BDSDC\svc_bds|INFO|Usuário "svc_bds" na máquina "SVR2" rodou o instalador como administrador.  
|2018-04-23 10:58:19.780|BDSDC\svc_bds|INFO|Usuário "svc_bds" na máquina "SVR2" tem .NET 4.5.2 ou superior.  
|2018-04-23 10:58:19.780|BDSDC\svc_bds|INFO|Versão do instalador: 18.4.16.1  
|2018-04-23 10:58:23.030|BDSDC\svc_bds|WARN|08746|Cannot find environment certificate.
```

Figure 28 - Example of LOG generated in case of error

After the UP2DATA is successfully installed, the user can choose two option boxes before closing the installer. Both boxes are already checked by default, and it is recommended that they remain checked.

- **Start UP2DATA after installation is completed:** With this option box checked, the **UP2DATA Client** Windows Service is automatically started after the installation is completed.

- **Start UP2DATA together with the system:** With this option box checked, the **UP2DATA Client** Windows Service automatically starts when turning on the computer.

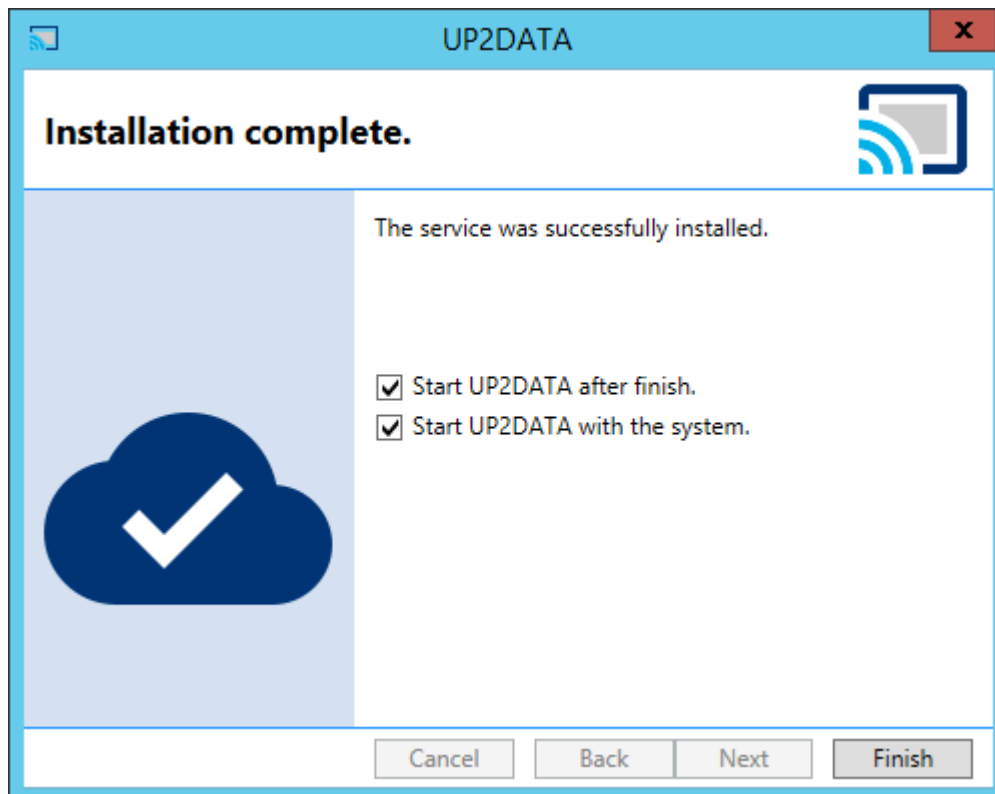


Figure 29 - Final service installation screen

After choosing the option boxes that best apply to your environment, click **<Finish>** and the installation process will be successfully completed. The application will automatically open a Windows screen with the folder chosen for download if the "Start UP2DATA after installation is completed" option box is checked. The folders and files in the subscribed channels will automatically be displayed in this window.

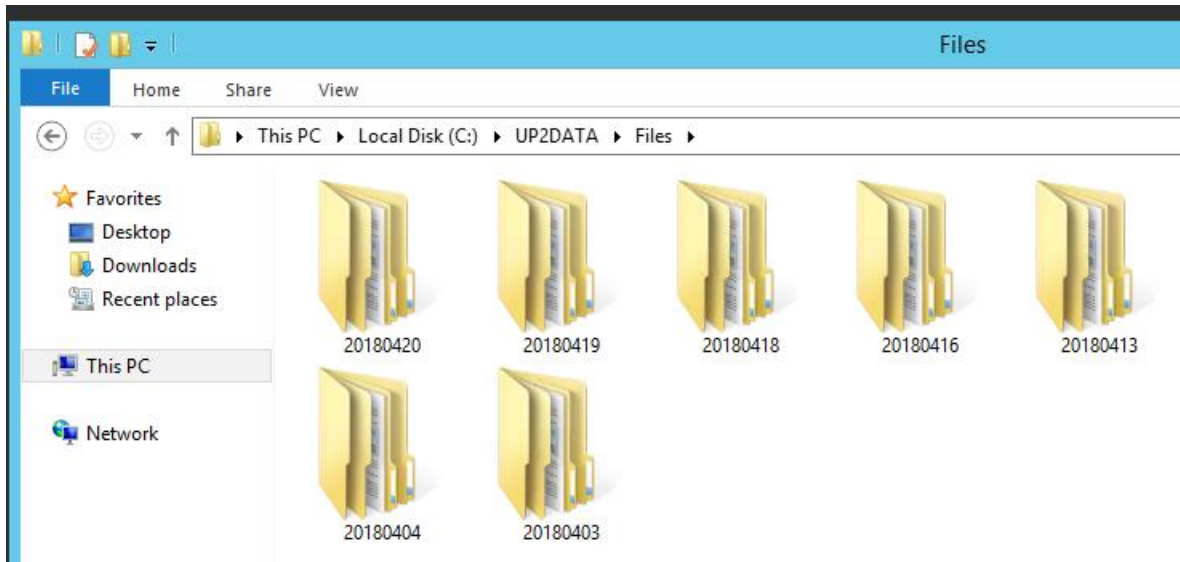


Figure 30 – Windows screen with the files download folder

4. How the UP2DATA Client application works

The **UP2DATA Client** will start automatically after installation is completed and the Windows Service is started. Customers will receive one updated file per day on the **Heartbeat** channel, which will be overwritten with each new update. The file can be accessed in the root folder defined in step 3 of the installation (Download Folder, Figures 3 to 9), Section 3 of this Manual.

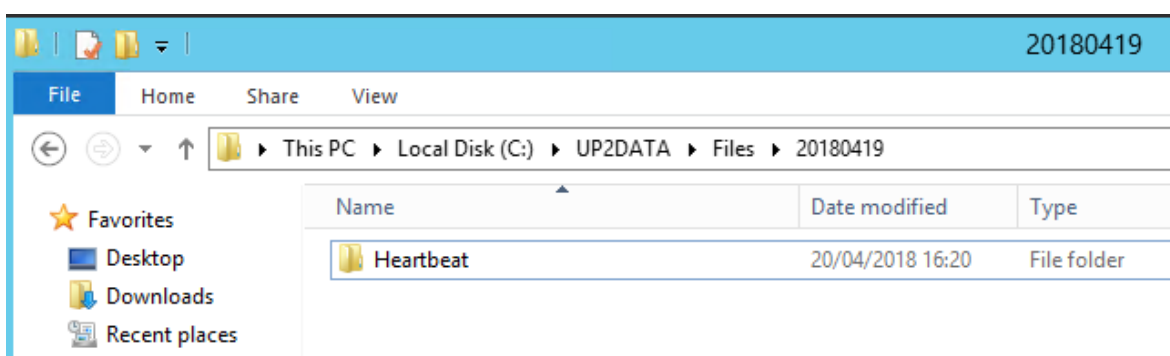


Figure 31 - Heartbeat channel folder

The contents of the downloaded file will always include the information "B3 - UP2DATA Service - Heartbeat", plus the date and time the file was created on the server.

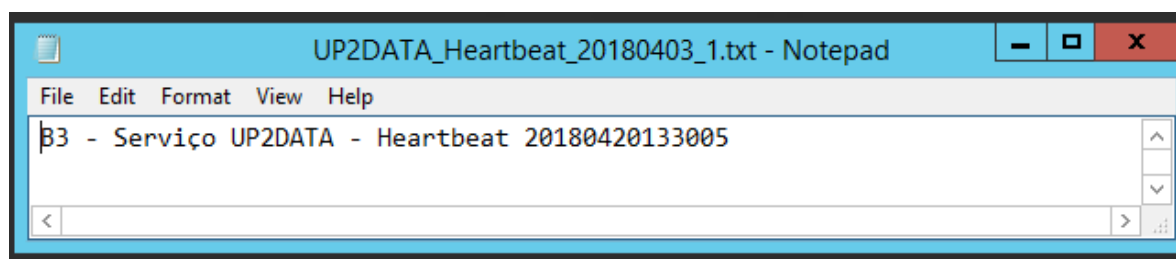


Figure 32 - Example of contents in the "UP2DATA_Heartbeat_20180403_1.txt" file

The **UP2DATA Client** is continuously connected to the **UP2DATA** service and automatically downloads data as they become available.

Each data channel has an expected data availability time with most publications disclosed soon after each market closes. Any re-processing carried out by B3 is also automatically forwarded to all customers.

If the customer has lost connection to the **UP2DATA** service for up to ten days, the **UP2DATA Client** application will automatically download all outstanding files as soon as the connection is re-established. The computer on which the application is installed does not need to be set up in the Brasilia time zone, just as the clock does not need to be synchronized with the official time used by B3.

5. Uninstall

If the **UP2DATA Client** needs to be uninstalled, customers should run the **Up2Data.Install.exe** application again by double-clicking it.

The automatic installer will automatically create a "log" subfolder in the same directory where the **Up2Data.Install.exe** file is saved and will record all uninstall steps, as well as any failures, during the uninstall process.

The uninstall process removes the **UP2DATA Client** application from the computer, but keeps all files downloaded through the **UP2DATA** service in the folder defined during the installation.

The installer will automatically warn that the **UP2DATA Client** application is already installed on the computer and will prompt users to confirm the uninstall.

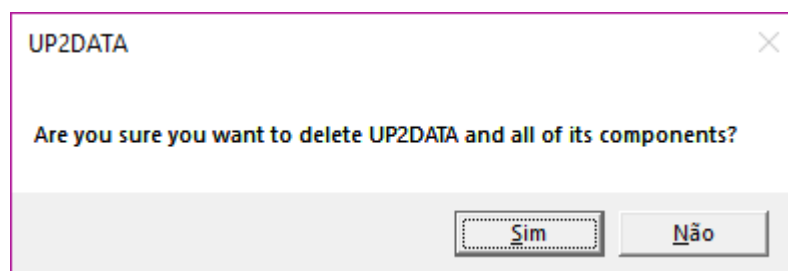


Figure 33 - UP2DATA Client uninstall confirmation

After clicking <Sim> (Yes) the following screen will be displayed:

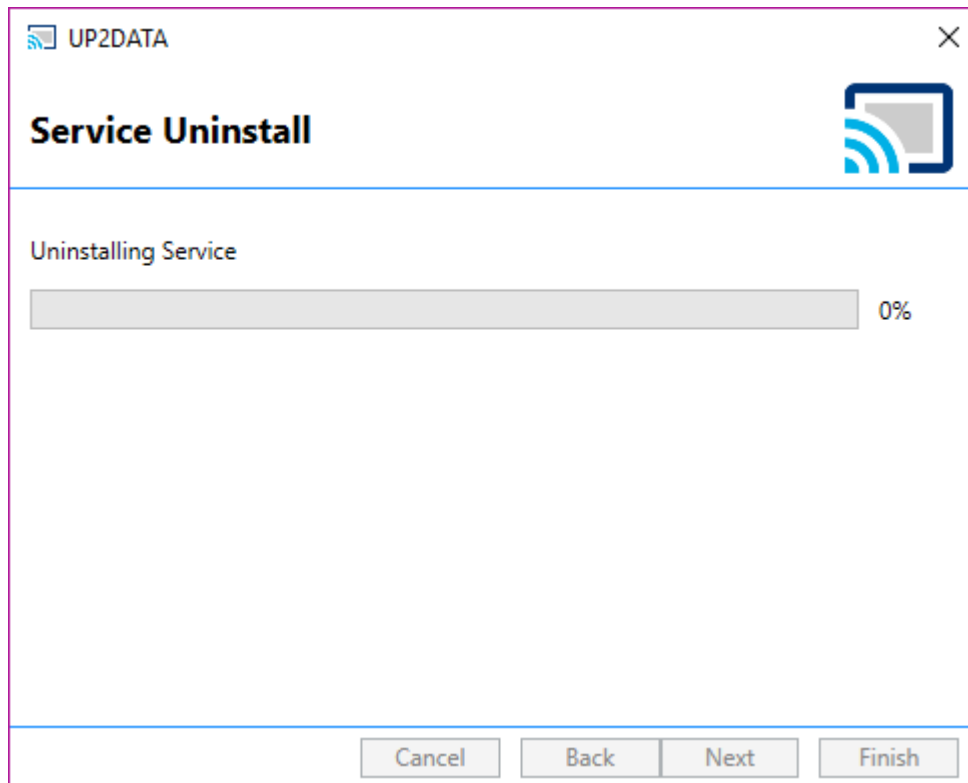


Figure 34 - Uninstall process underway

After successful uninstall, just click **<Finish>**, and the **UP2DATA Client** will have been successfully removed from the computer. During the uninstall process, the key registered for the computer is automatically unlinked on the **UP2DATA** servers and released for installation on another computer.

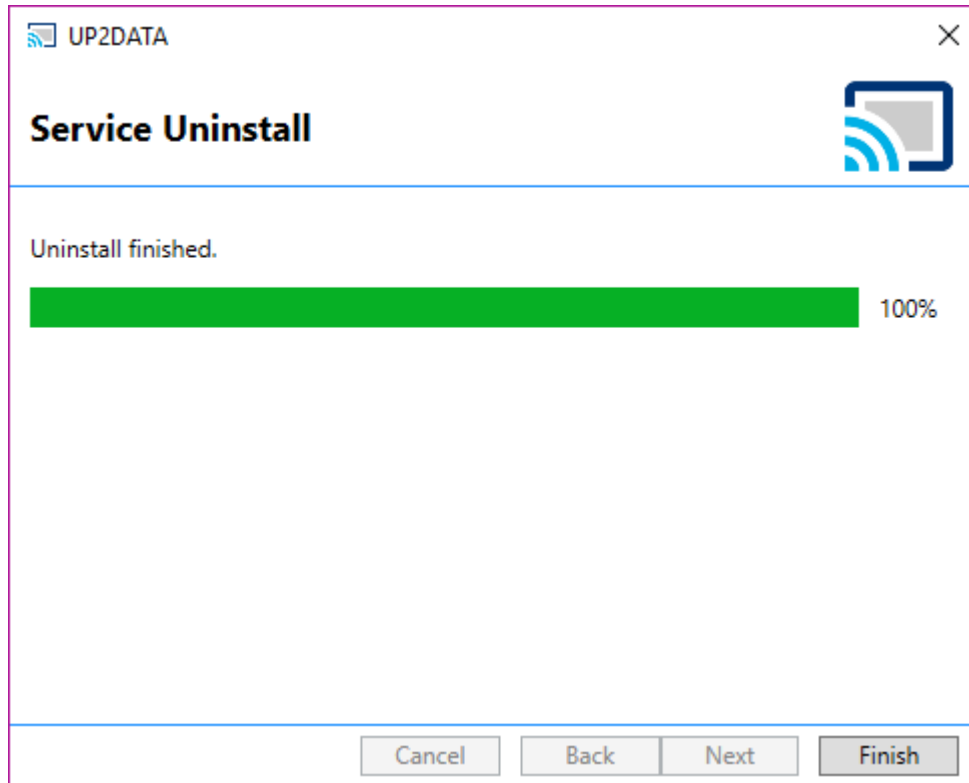


Figure 35 - Uninstall process successfully completed

6. Windows Service user and/or password change

If you need to change the user and/or password of the **UP2DATA Client** Windows Service, you must open the Windows Service Center. The user must have a local administrator profile on the equipment to make this change.

To open the Windows Services screen, open the Run user command menu and enter: **services.msc**

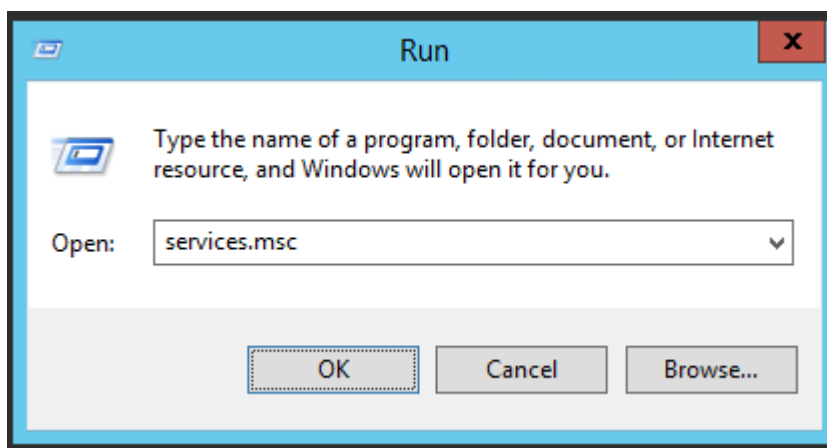


Figure 36 - Windows Run screen

On the services screen, select **UP2DATA** and double-click to open the service properties window:

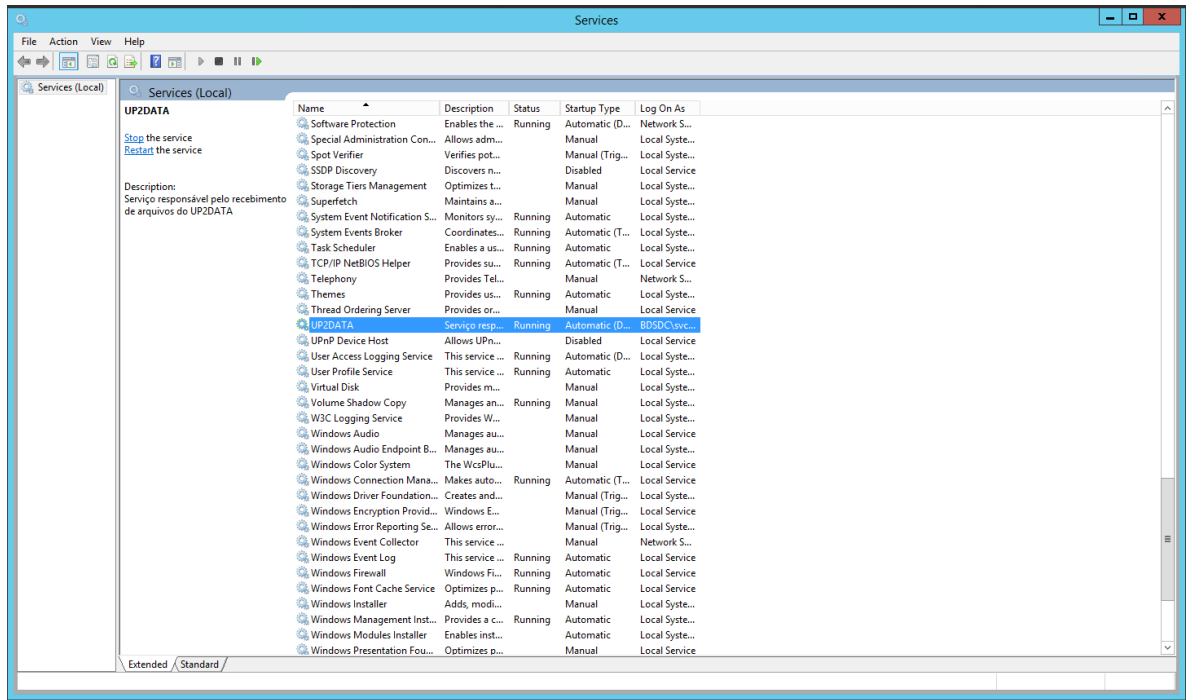


Figure 37 - Windows Services screen

Click on the Logon tab and change the required user and password information:

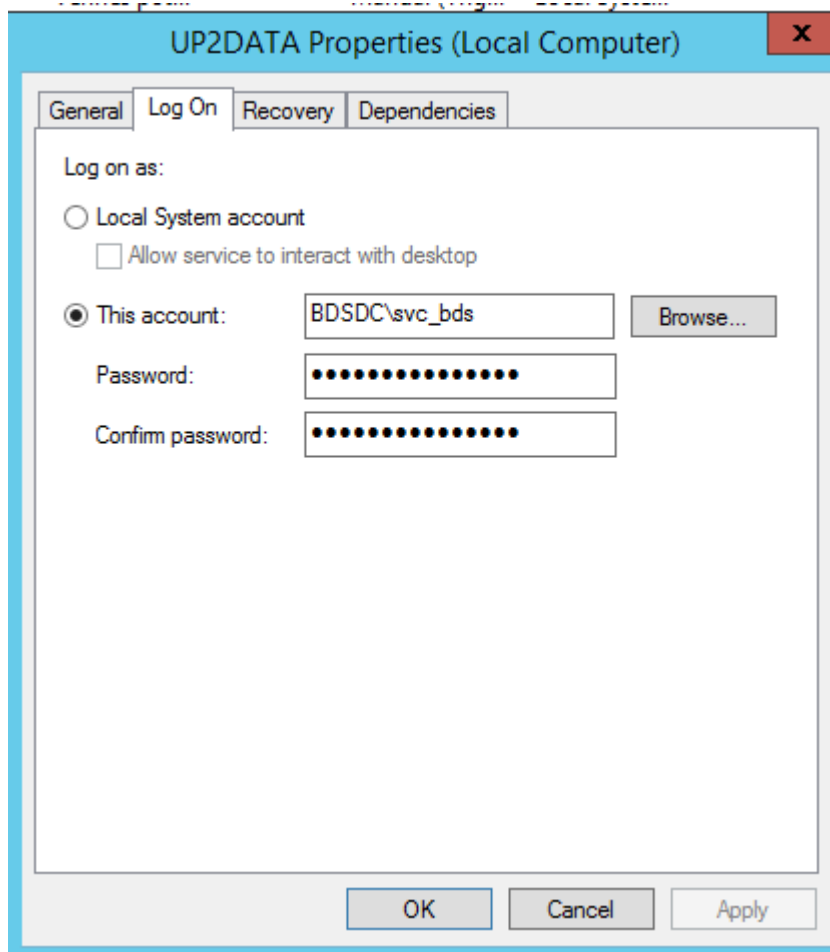


Figure 38 - UP2DATA service logon properties window

Once you have changed the user name and password, click <**Apply**> and the following message will be displayed:

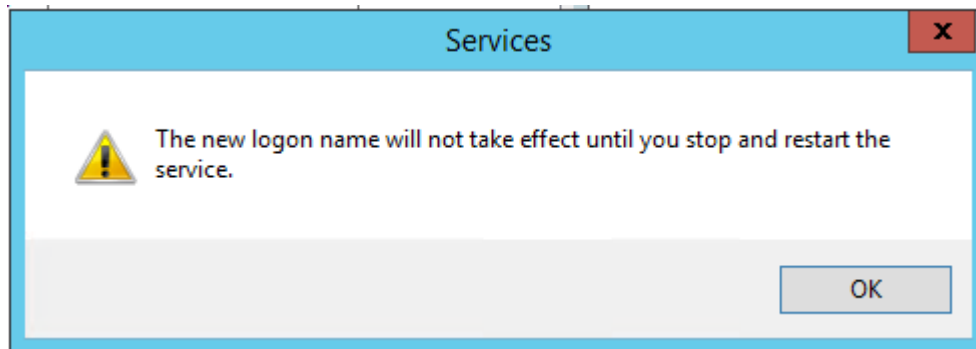


Figure 39 - Service restart warning message

Click **OK** on the message and then **OK** on the UP2DATA service properties screen. Right click on the UP2DATA service and choose the **<Restart>** option for changes to take effect:

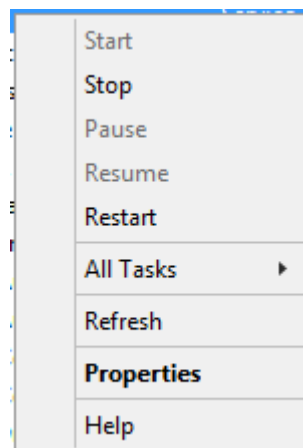


Figure 40 - UP2DATA service Restart option

The service user and/or password change process was successfully completed.



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