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## Configuring SFTPv2 Connector in Boomi

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## SFTP V2 CONNECTOR

In this blog, you will learn what is SFTP and how to configure SFTP V2 connector in Boomi. I will explain the use of each action present in sftp v2. By the end of this blog, you will be able to develop a process which helps you to List the files from sftp server.

### What is SFTP?

SFTP stands for Secure File Transfer Protocol. It is a secure version of the File Transfer Protocol (FTP), which is used to transfer files between a client and a server over a network. SFTP provides encryption and authentication mechanisms to ensure that data is transferred securely.

### Key features of SFTP

#### Security:

SFTP encrypts both the data being transmitted and the authentication credentials used to access the server. This ensures that sensitive information remains protected from unauthorized access or interception.

#### Authentication:

SFTP supports various authentication methods such as password authentication, public key authentication

### SFTP V2 Connector

- The sftp v2 connector allows you to download files from or upload files to the SFTP-enabled server.
- Unlike the standard FTP connector, the SFTP V2 connector encrypts data to ensure that no sensitive data is exposed when transmitted over a network.
- Using this connector, you can use a Boomi Integration process to GET, CREATE, QUERY, UPSERT, DELETE, LIST, and LISTEN the data in any format.
- SFTP V2 connector supports multiple actions which includes
  1. Create
  2. Upsert
  3. Get
  4. Query
  5. List
  6. Delete
  7. Listen

Now we learn about each action in detail

## Actions of SFTPv2 Connector

### CREATE:

Create action is used to upload files to the SFTP server. If the file name is not set, or if the file name already exists, the connector uses the **Action if file exists** setting to determine the next step.

If the Create operation is successful, the file is uploaded and added to the server and the connector returns a JSON document with information about the file. The file information includes the name of the file, Remote Directory, when the file was last modified.

### UPSERT:

Upsert action is used to either create a new file in the specified remote directory or perform an update to a file if it exists in the SFTP server.

- If file name already exists, the connector automatically overrides the existing file in the SFTP server and replaces it with the new file.
- If the file name does not exist, the connector will create a new file in the SFTP server.
- If the file name is not provided, the connector returns an error message.

### GET:

Get action is used to fetch a file at a given location. When using Get to download a file from the server, the file name (ID) must be specified as the parameter. If not specified, the connector displays an error.

### QUERY:

Query action is used to fetch zero or more files based on file filters.

After you select the Query action and use the **Import Wizard**, the operation component page contains configuration options to add filters and set parameters to limit the number of files returned.

### DELETE:

Delete action is used to delete a file from a remote directory in the SFTP Server based providing the file name (i.e., ID) and file directory.

This operation returns an exception if the file name specified is invalid and does not match the ID. If the file directory is not specified, the connector will search for the file in the home directory of the SFTP server and will not return error message, if file not found.

**Note:** You cannot delete a directory with this operation.

## LIST:

List action is used to get a list of files in the remote directory based on a specific criterion. However, the List operation only lists the metadata about files (not file content) based on the filters.

This operation returns a response profile for each file containing a JSON object describing the file's metadata, such as File Name, Directory, Created Date, Modified Date, and File Size information and indicates if the file is a directory.

## LISTEN:

Listen operation is to listen to the events in the root directory of the remote SFTP server. This operation allows listening to file creation, file deletion or any modification on the existing file in the SFTP server remote directory events.

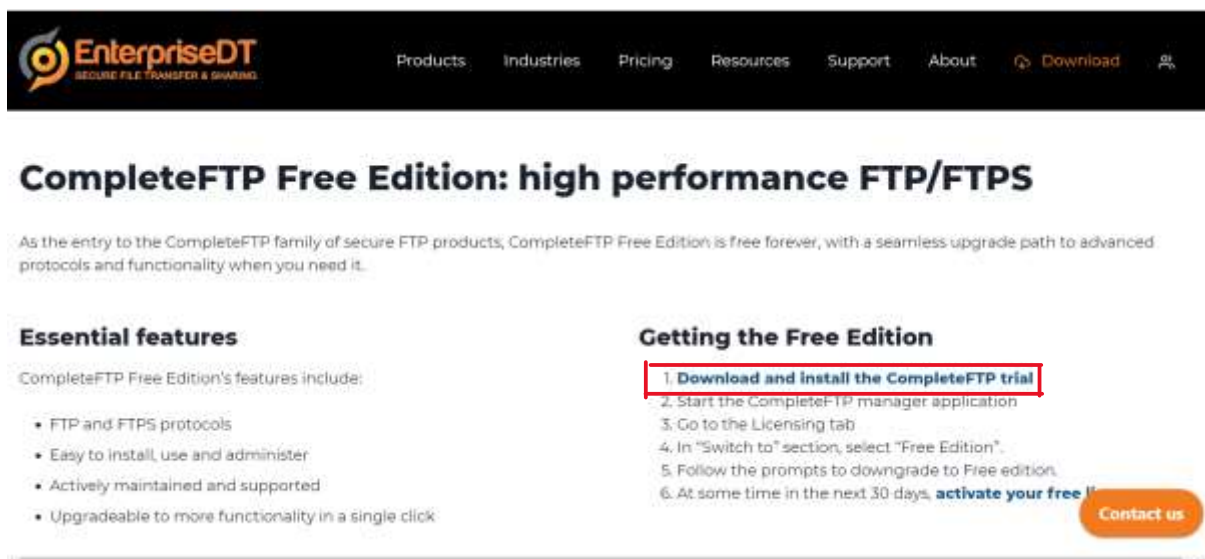
Now we will learn how to set up an SFTP server using the CompleteFTP application.

## Steps to set up SFTP Server:

**Step 1.1:** Open the below URL in the browser.

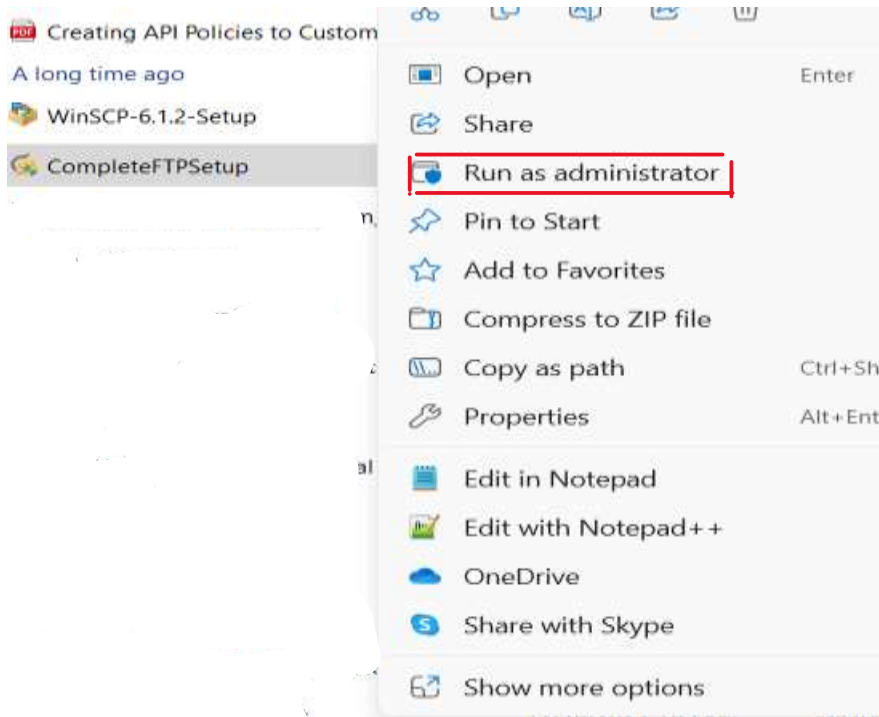
<https://enterprisedt.com/products/completeftp/free/>

**Step 1.2:** click on the **Download and install the CompleteFTP trial** to install the application.



The screenshot shows the top navigation bar of the EnterpriseDT website with links for Products, Industries, Pricing, Resources, Support, About, Download, and a user icon. Below the navigation is the main heading "CompleteFTP Free Edition: high performance FTP/FTPS". A sub-heading reads: "As the entry to the CompleteFTP family of secure FTP products, CompleteFTP Free Edition is free forever, with a seamless upgrade path to advanced protocols and functionality when you need it." The page is divided into two columns. The left column, titled "Essential features", lists: FTP and FTPS protocols, Easy to install, use and administer, Actively maintained and supported, and Upgradeable to more functionality in a single click. The right column, titled "Getting the Free Edition", contains a numbered list of steps: 1. Download and install the CompleteFTP trial (highlighted with a red box), 2. Start the CompleteFTP manager application, 3. Go to the Licensing tab, 4. In "Switch to" section, select "Free Edition", 5. Follow the prompts to downgrade to Free edition, and 6. At some time in the next 30 days, activate your free license. A "Contact us" button is located at the bottom right of the right column.

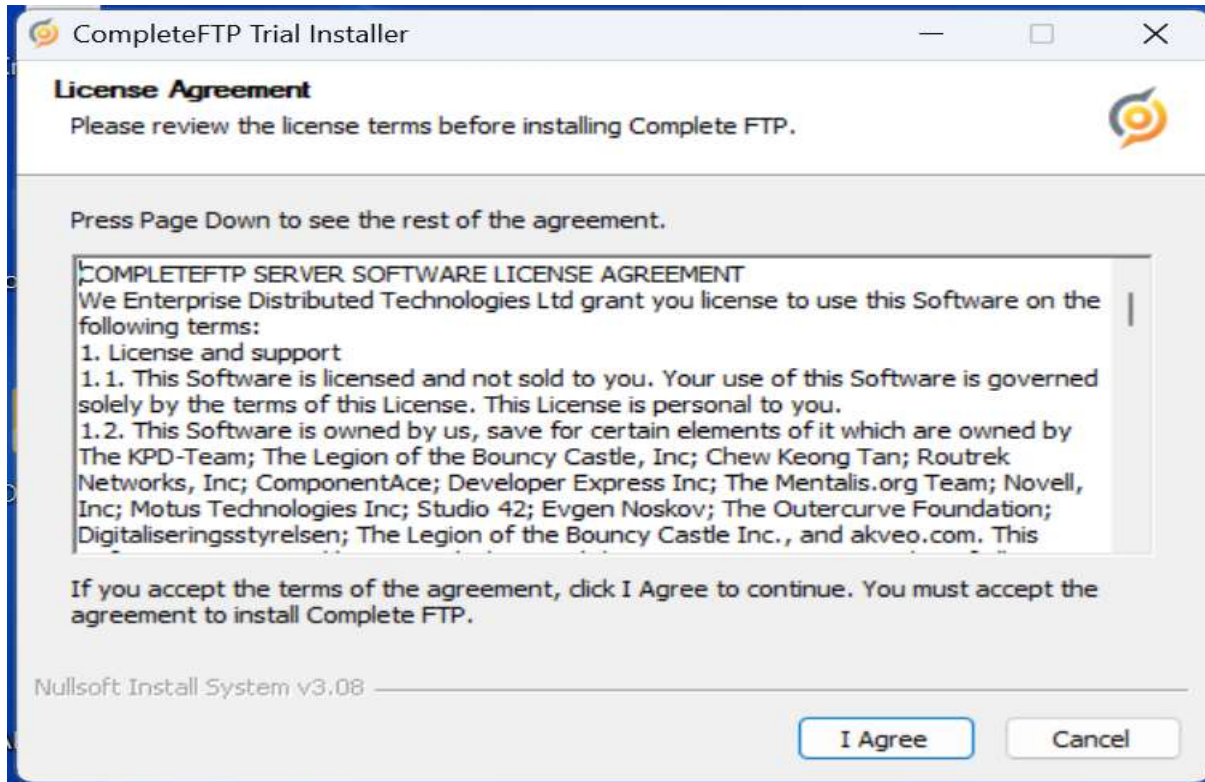
**Step 3:** Now go to the downloads. Right click on the CompleteFTP installer which is downloaded. Click on Run as administrator.



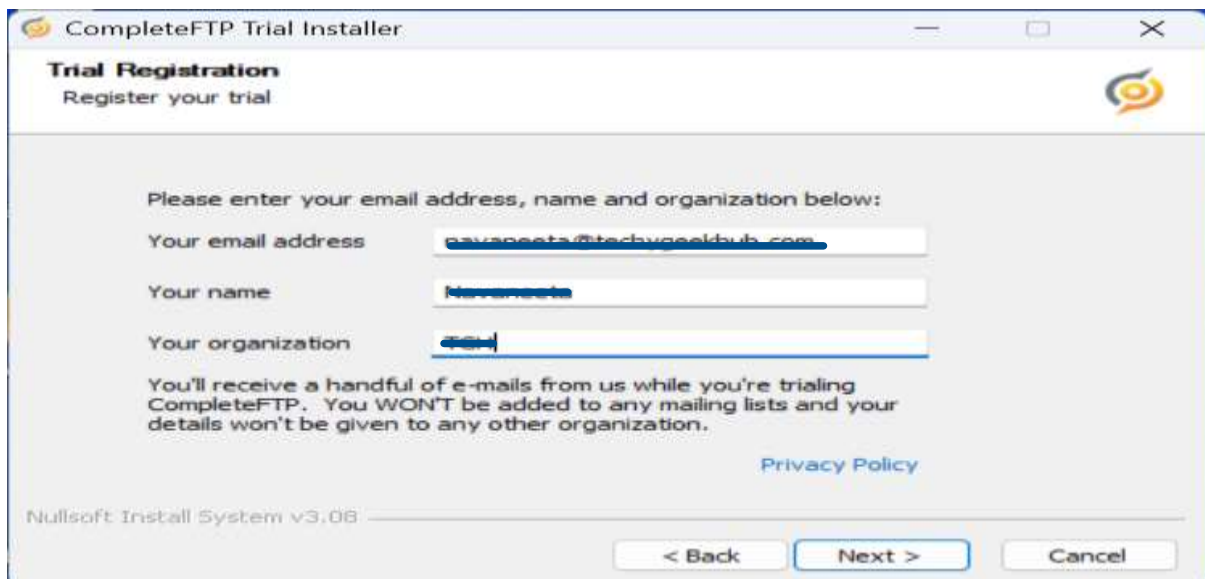
**Step 4:** Click On Run anyway



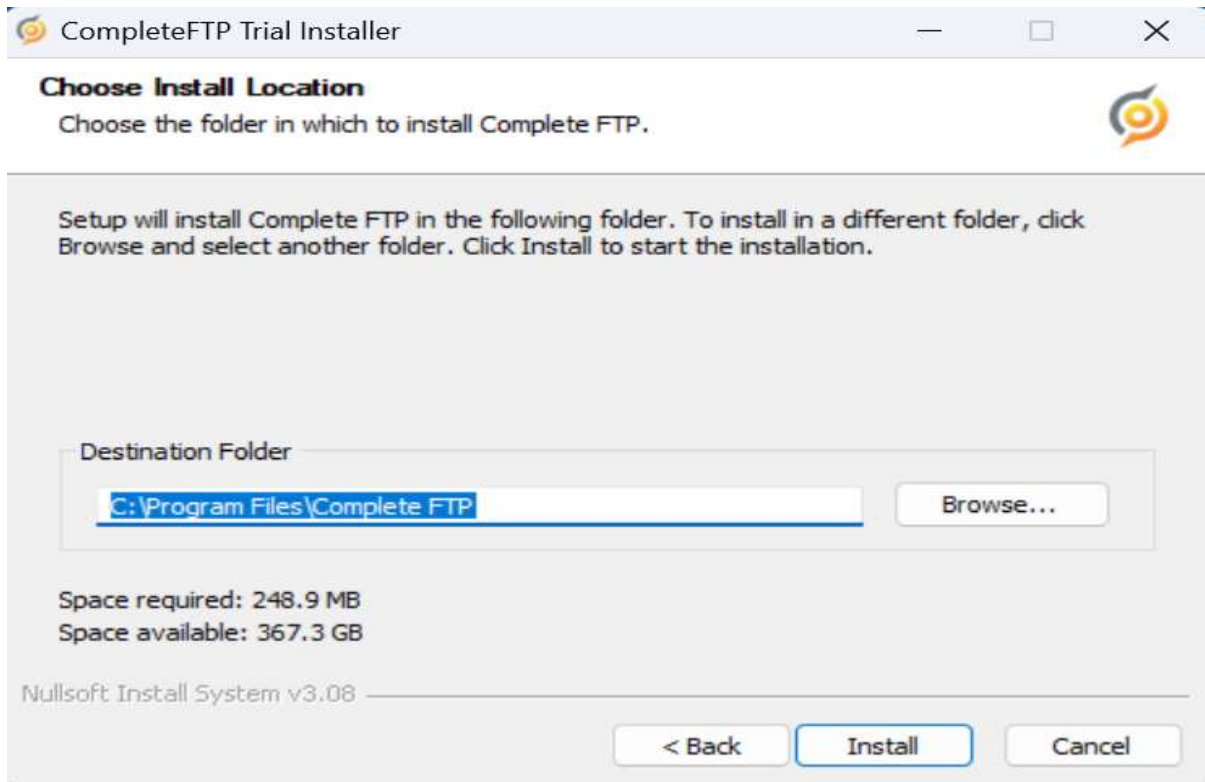
**Step 5:** Click on I agree



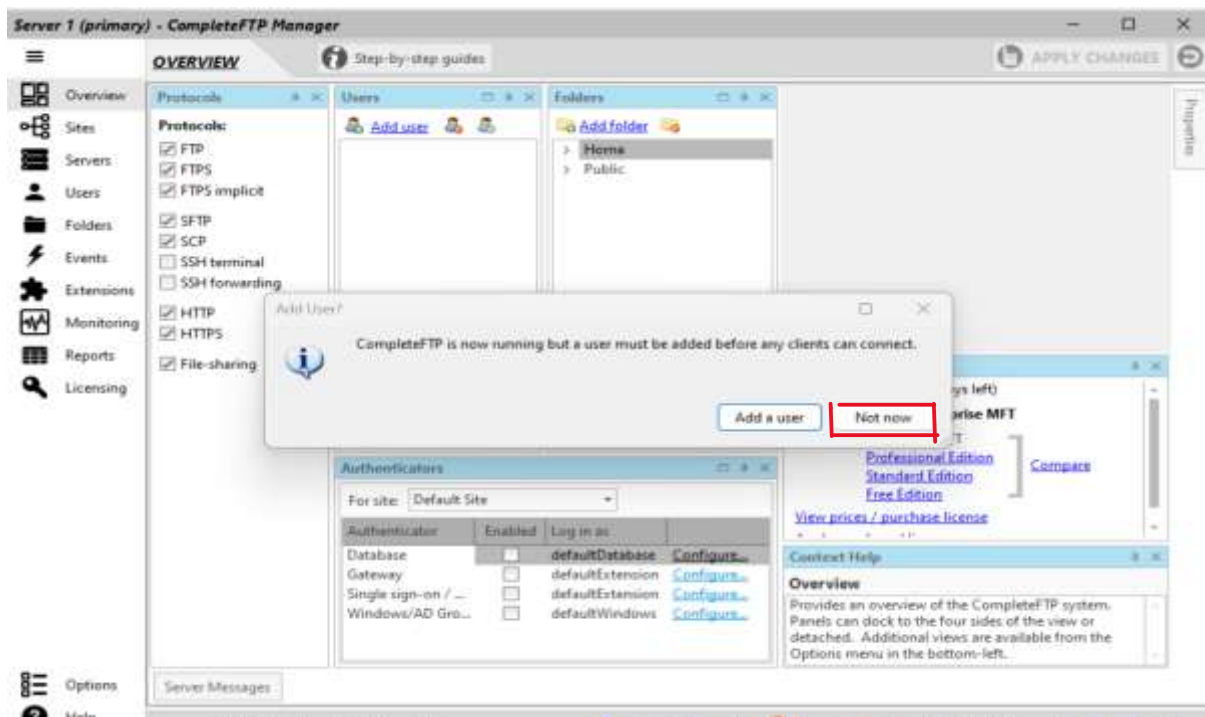
**Step 6:** Enter necessary details like email address, name and organization. Then Click on Next.



**Step 7:** Click on Install



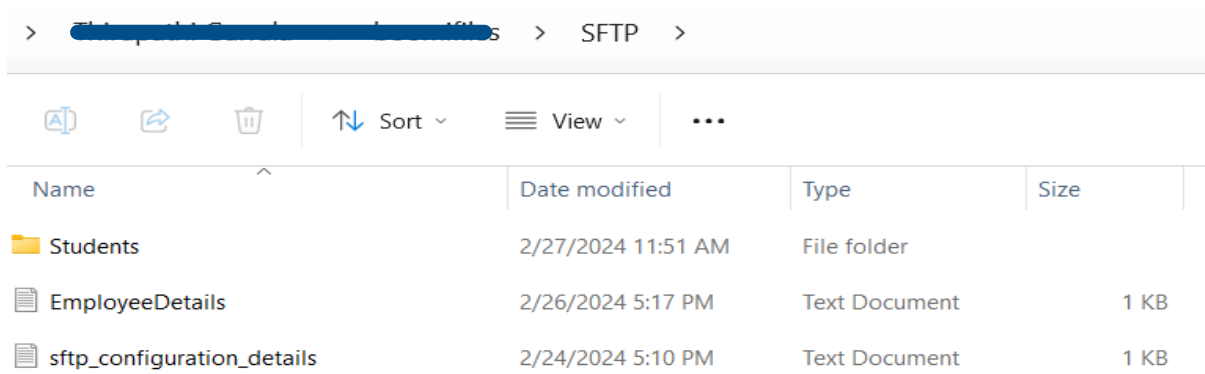
**Step 8:** A new window will pop up as shown below. Click on Not now.



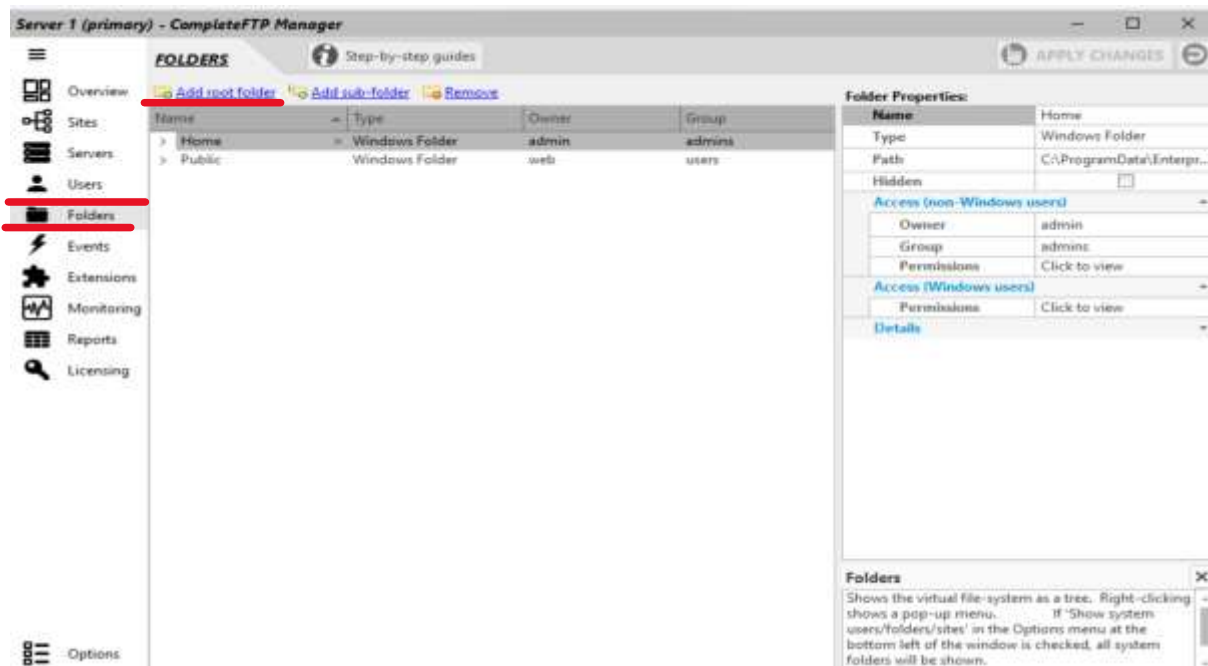


**Step 9:** Create one folder in your local system with name as **SFTP** and place some files in it as shown below.

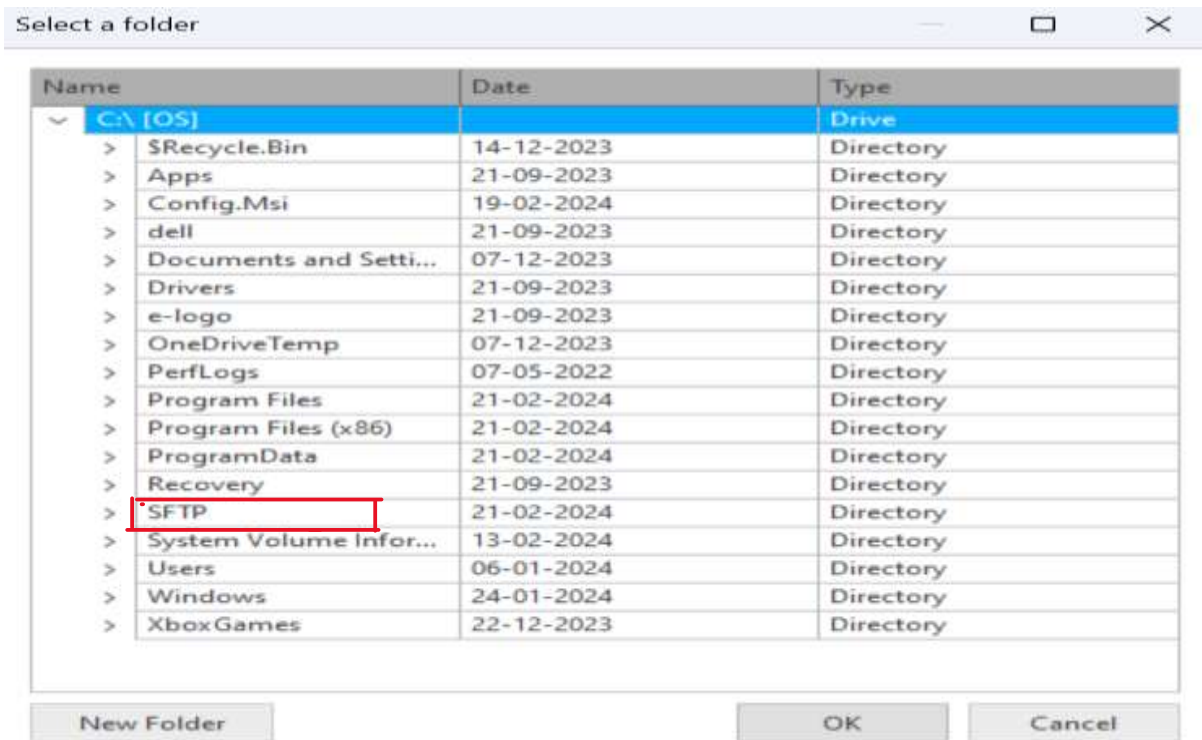
(Recommended to give the name as **SFTP** but not mandatory)



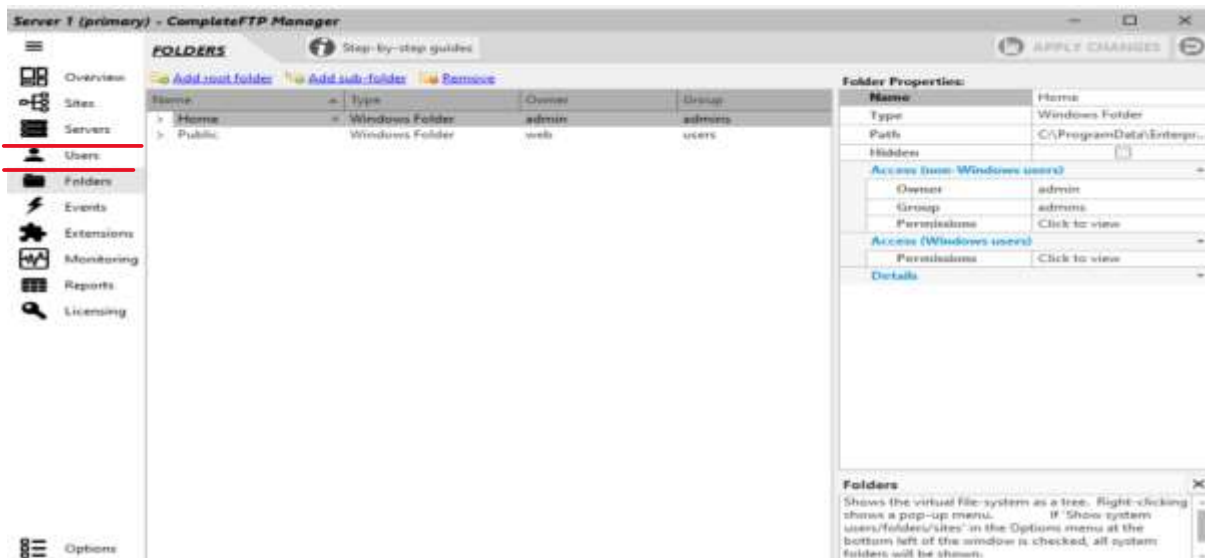
**Step 10:** Now in the CompleteFTP application, navigate to Folders. Click on Add root folder → Windows folder.



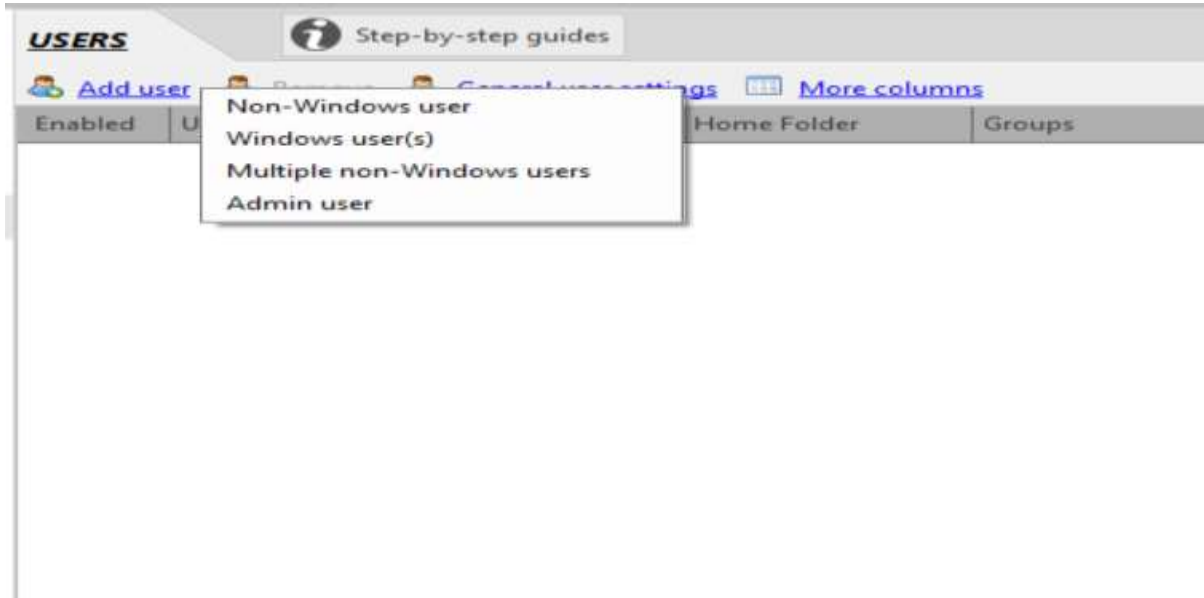
**Step 11:** Select the folder which you have created in **step9**. Then, Click on OK.



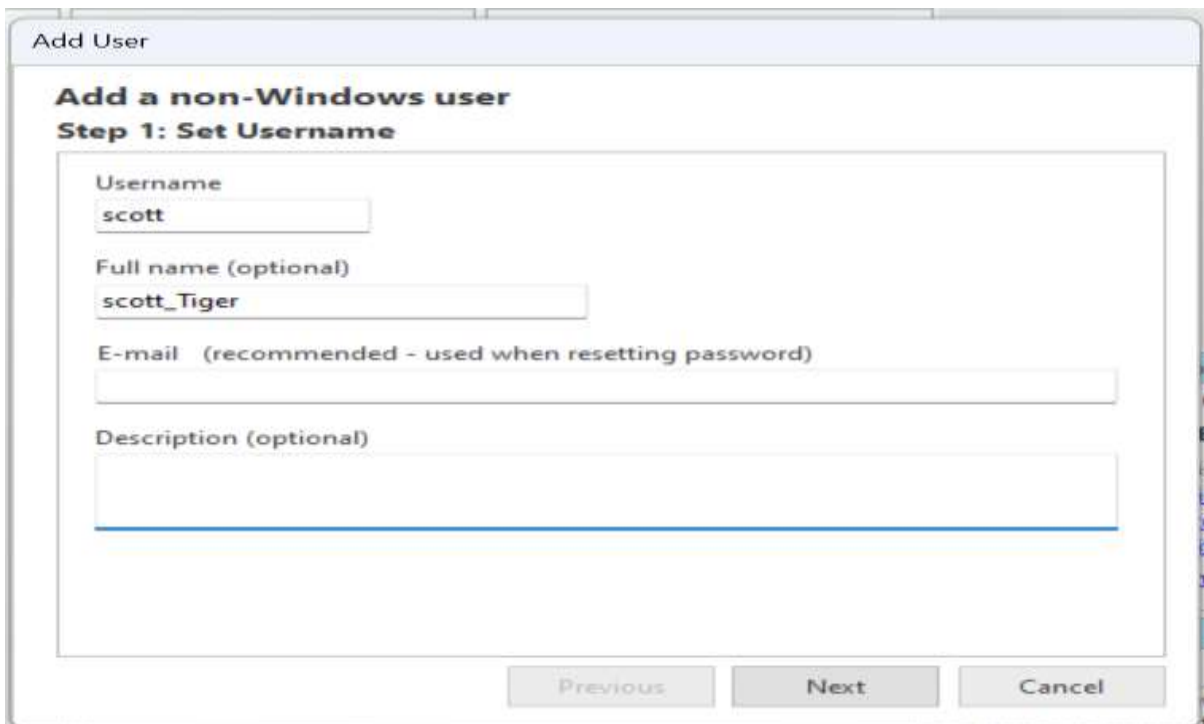
**Step 12:** Now navigate to Users and click on Add User



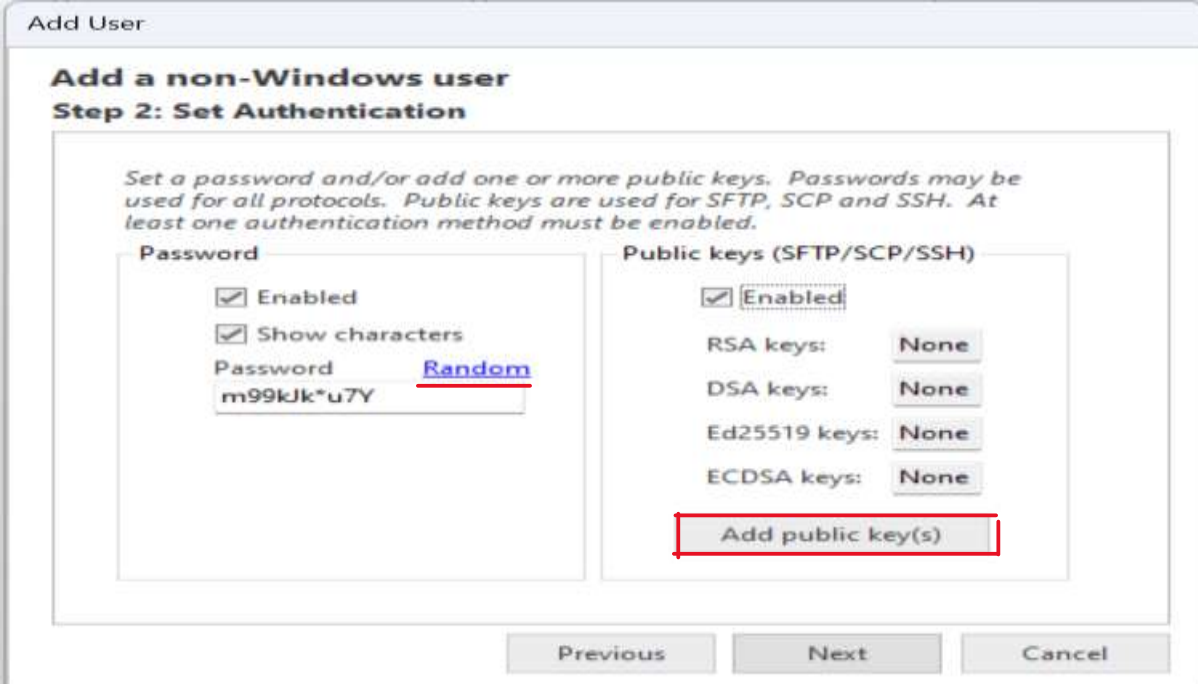
**Step 13:** Click on Non-Windows user



**Step 14:** Configure the mandatory details like username (recommended to fill the optional details). Copy and paste the username in the notepad. Click on Next.



**Step 15:** To configure the Password, click on Random and copy and paste the generated password into the notepad. Configure everything as shown below and click on Add public key(s).



**Add User**

**Add a non-Windows user**

**Step 2: Set Authentication**

Set a password and/or add one or more public keys. Passwords may be used for all protocols. Public keys are used for SFTP, SCP and SSH. At least one authentication method must be enabled.

**Password**

Enabled

Show characters

Password [Random](#)

m99kJk\*u7Y

**Public keys (SFTP/SCP/SSH)**

Enabled

RSA keys: None

DSA keys: None

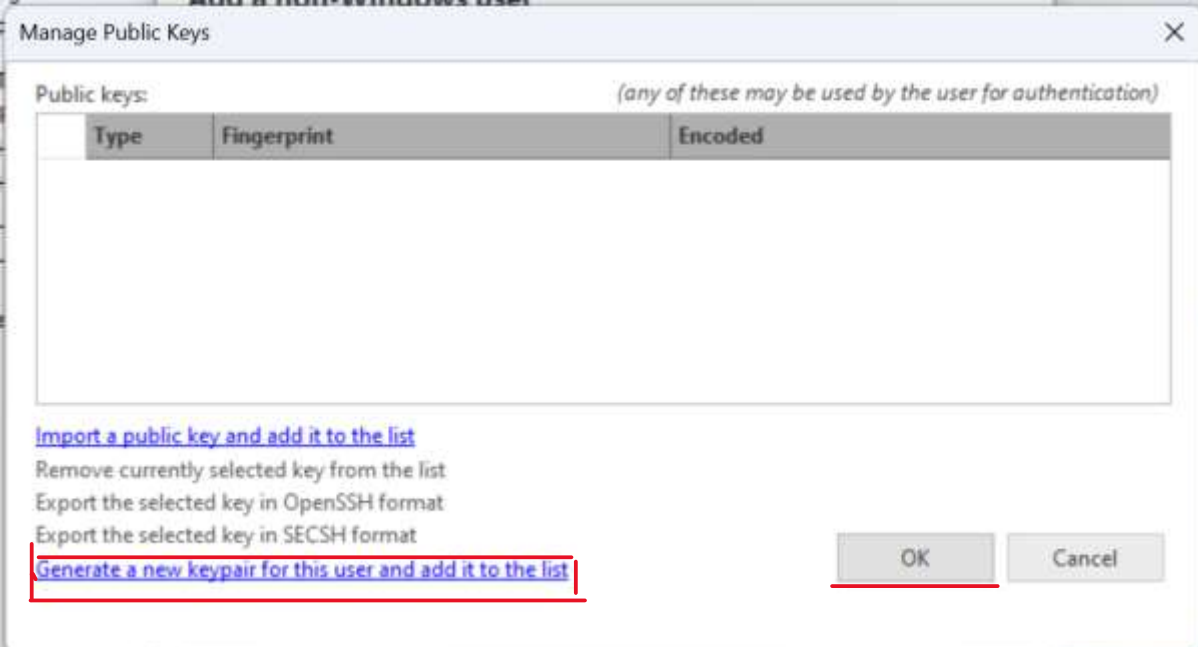
Ed25519 keys: None

ECDSA keys: None

**Add public key(s)**

Previous Next Cancel

**Step 16:** Click on Generate a new keypair for this user and add it to the list



**Manage Public Keys**

Public keys: (any of these may be used by the user for authentication)

Type	Fingerprint	Encoded
------	-------------	---------

[Import a public key and add it to the list](#)

Remove currently selected key from the list

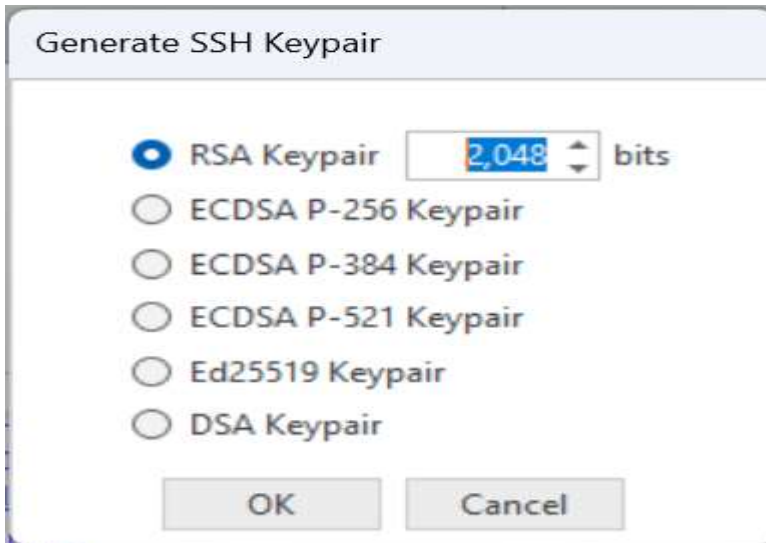
Export the selected key in OpenSSH format

Export the selected key in SECSH format

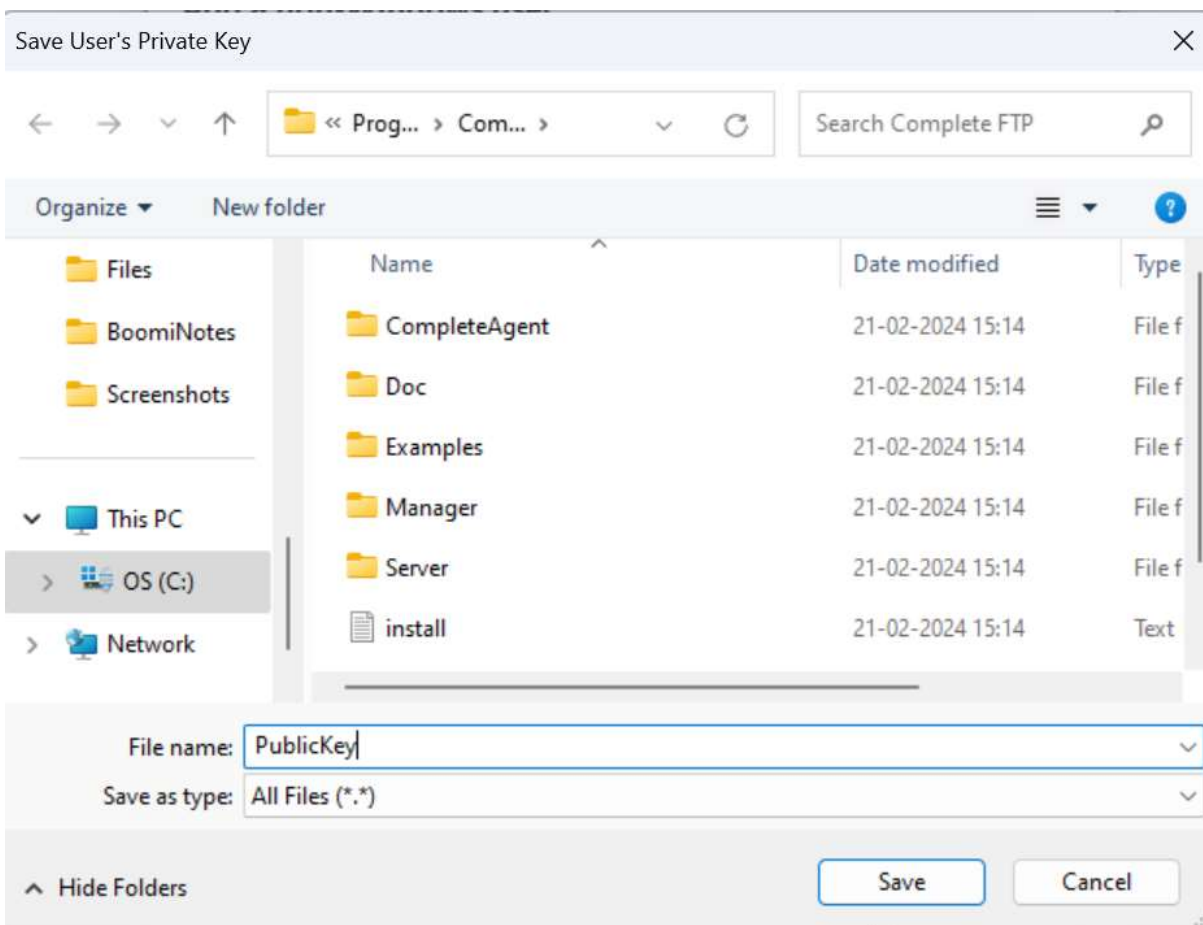
[Generate a new keypair for this user and add it to the list](#)

OK Cancel

**Step 17:** Configure as shown below and click on OK.



**Step 18:** Now we will be redirected to our local storage. Here, we have to save the public key file which was generated in the CompleteFTP folder with any name. Click on save.

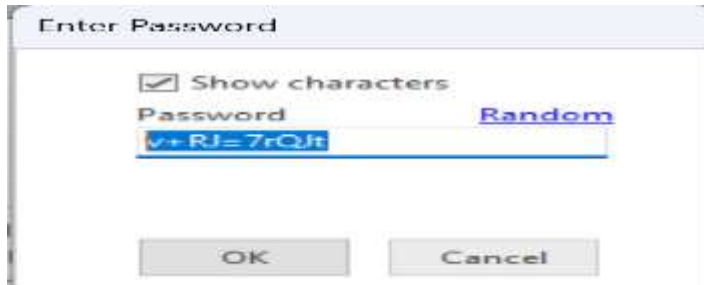


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**Step 19:** Now we will be redirected back to CompleteFTP as shown below. Click on Random and click on OK.



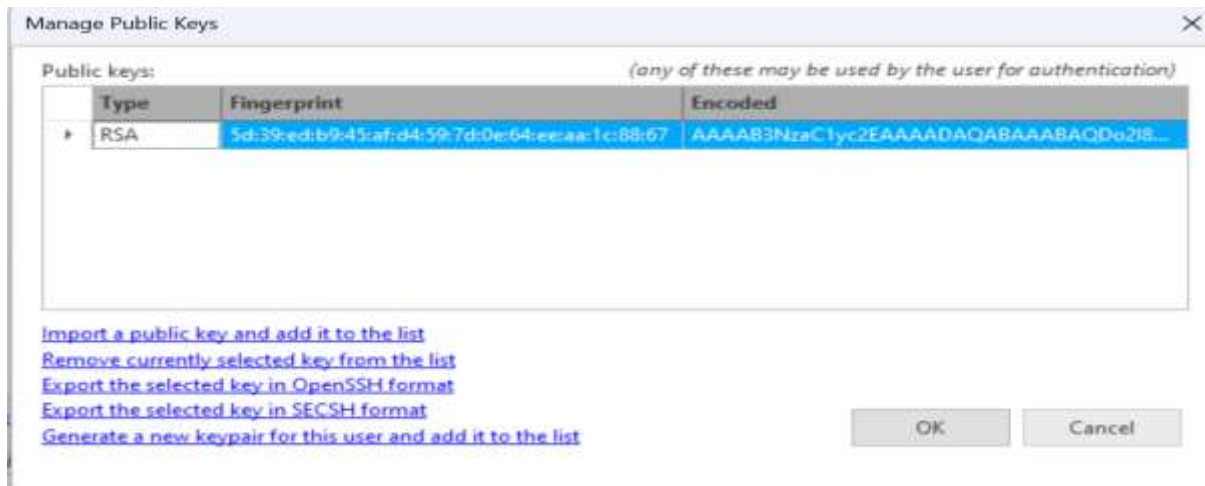
Enter Password

Show characters

Password Random

OK Cancel

A new tab will pop up as shown below. Just click on OK.



Manage Public Keys

Public keys: (any of these may be used by the user for authentication)

Type	Fingerprint	Encoded
RSA	5d:39:ed:b9:45:af:d4:59:7d:0e:64:ee:aa:1c:88:67	AAAAB3NzaC1yc2EAAAADAQABAAQDo2I8...

[Import a public key and add it to the list](#)  
[Remove currently selected key from the list](#)  
[Export the selected key in OpenSSH format](#)  
[Export the selected key in SECSH format](#)  
[Generate a new keypair for this user and add it to the list](#)

OK Cancel

**Step 20:** Click on Next.



Add User

**Add a non-Windows user**  
**Step 2: Set Authentication**

*Set a password and/or add one or more public keys. Passwords may be used for all protocols. Public keys are used for SFTP, SCP and SSH. At least one authentication method must be enabled.*

**Password**

Enabled  
 Show characters  
Password Random

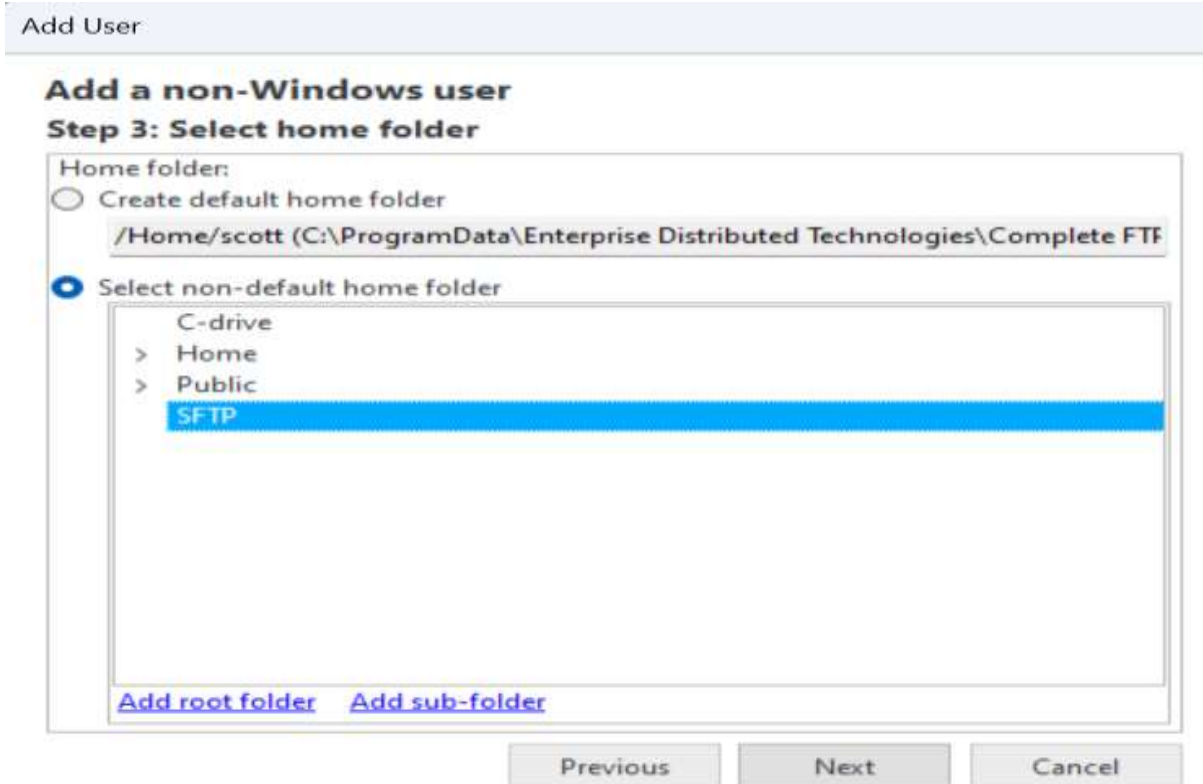
**Public keys (SFTP/SCP/SSH)**

Enabled

RSA keys:   
DSA keys:   
Ed25519 keys:   
ECDSA keys:

Previous Next Cancel

**Step 21:** Select the folder which you have configured previously as shown below and click on Next.



Add User

**Add a non-Windows user**

**Step 3: Select home folder**

Home folder:

Create default home folder  
/Home/scott (C:\ProgramData\Enterprise Distributed Technologies\Complete FTF)

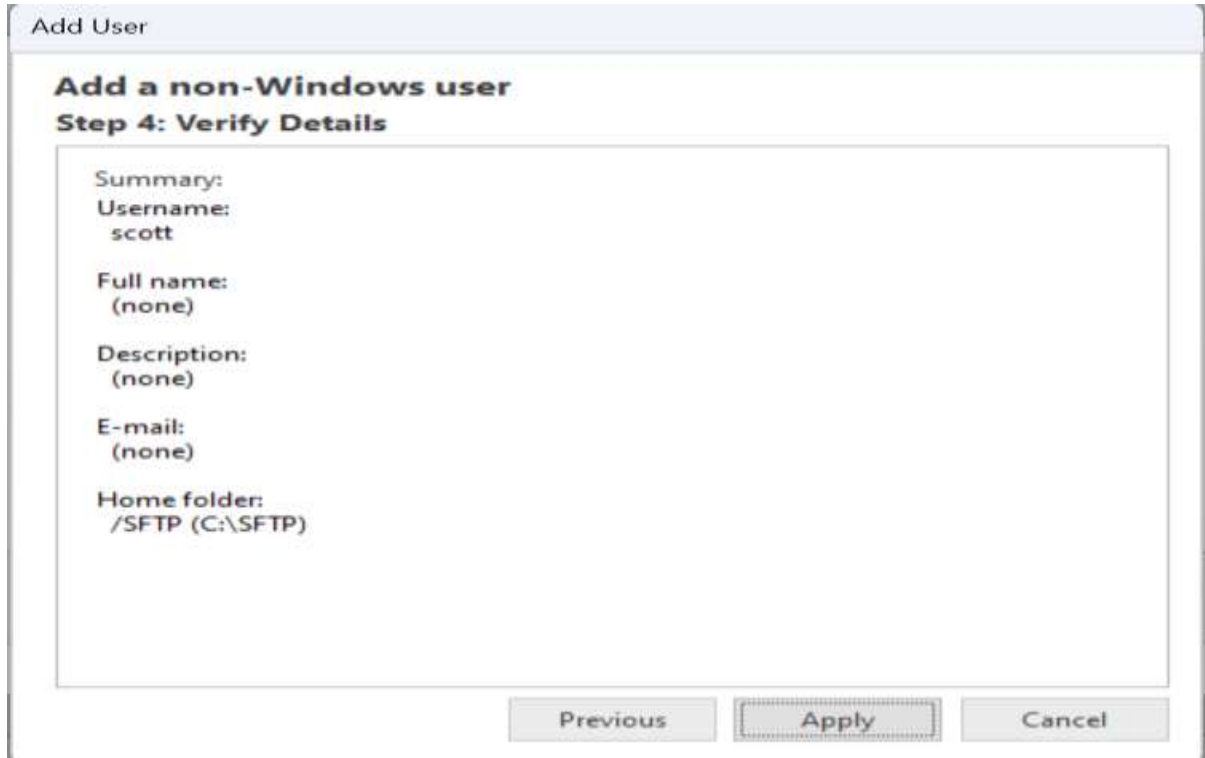
Select non-default home folder

- C-drive
  - > Home
  - > Public
  - SFTP**

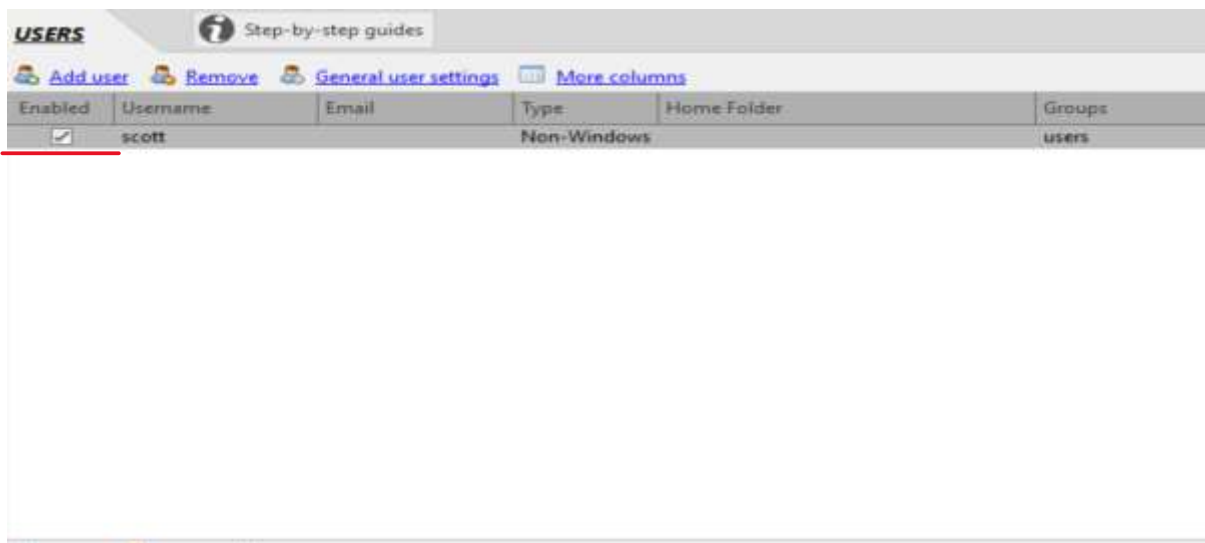
[Add root folder](#) [Add sub-folder](#)

Previous Next Cancel

**Step 22:** Now we can see all the details which we have configured previously (like username, home folder). Click on Apply.



**Step 23:** Now we can see the new tab as shown below. Under the Users tab, we can see the status of the user **scott** which we have created. The status is enabled.



**Step 24:** Open the command prompt and type ipconfig and click on enter.



```

Connection-specific DNS Suffix . :
Wireless LAN adapter Wi-Fi:

Connection-specific DNS Suffix . :
IPv6 Address . . . . . : 2406:b400:b4:c40d:c9d0:265b:10c0:ce80
Temporary IPv6 Address . . . . . : 2406:b400:b4:c40d:b967:e06a:ff39:1a3f
Link-local IPv6 Address . . . . . : fe80::d8f1:e2e7:3497:5965%8
IPv4 Address . . . . . : 192.168.0.10
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . : fe80::56af:97ff:fe6c:7273%8
                            192.168.0.1
  
```

Now copy the IPv4 Address of your system which got generated and paste it in the notepad. This address will be used as host when we are configuring the sftpv2 connector in Boomi. By following all the above steps, we have successfully setup SFTP server in our local system. Now we will leverage Boomi to integrate with this SFTP server and transfer the files to and from SFTP server using SFTPV2 connector.

Make sure you have noted the below mentioned details.

**Username:** \*\*\*\*\*  
**Password:** \*\*\*\*\*  
**Host:** \*\*\*\*\*

Now we will log in to the Boomi platform and configure SFTPV2 connector Connection Component.

### Steps to configure SFTPV2 connector Connection:

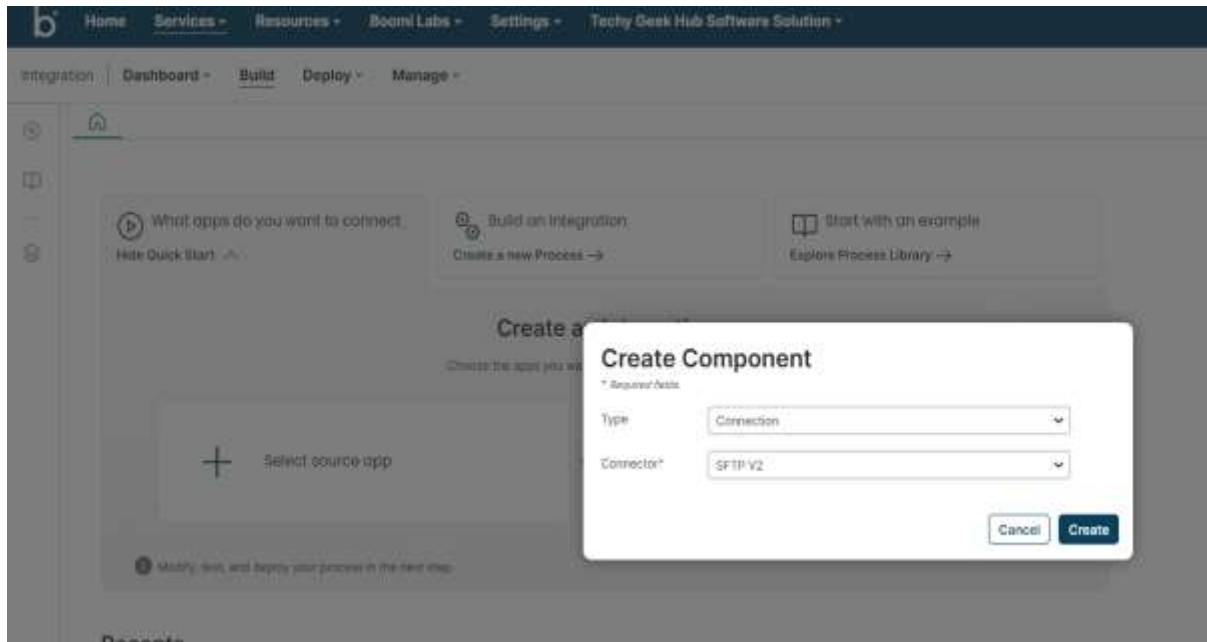
**Step 2.1:** Log onto the Boomi platform (<https://platform.boomi.com/>) with the required credentials (Email Address and Password).



**Step 2.2:** Under Services choose Integration



**Step 2.3:** Now click on + icon to create new connection component. Choose the Type as connection and connector as SFTP V2 as shown in below image. Click on create.



**Step 2.4:** Connection Component looks as shown below.

**Authentication Type** - Refers to an authentication type that can be selected: We have 2 types of authentications available.

1.Username and Password

2.Public key

**Remote Directory (Optional)** - Refers to the directory on the SFTP server where the connector reads files from or writes files to.

**NOTE:** If you leave this field blank, the connector uses the default working directory configured as the base folder on the SFTP server.

**Host** - Refers to a domain name or IP address of the SFTP host.

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**User Name** - Refers to the username of the account on the SFTP server. This field is mandatory if the Authentication Type is username and password.

**Password** - Refers to the password of the account on the SFTP server. This field is mandatory if the Authentication Type is username and password.

**Port** - Refers to port on which the SFTP server listens for incoming connections from the SFTP client. The default port is 22.

**Step2.5:** configure the mandatory fields like Authentication Type, Host, Username, password and click on test connection

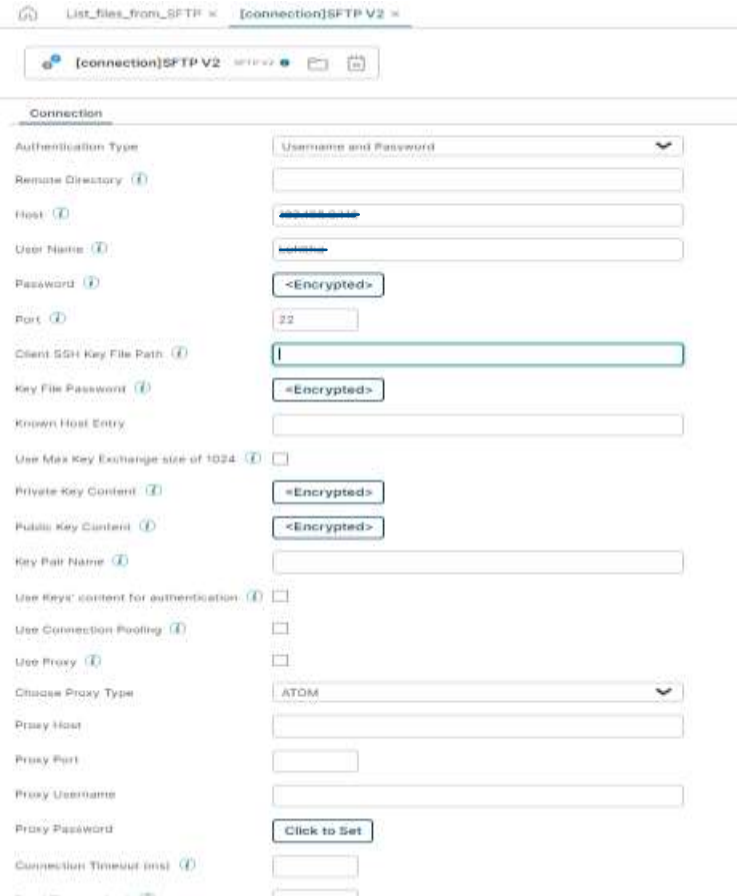
**Authentication Type:** username and password

**Host:** \*\*\*\*\*

**Port:** 22

**Username:** \*\*\*\*\*

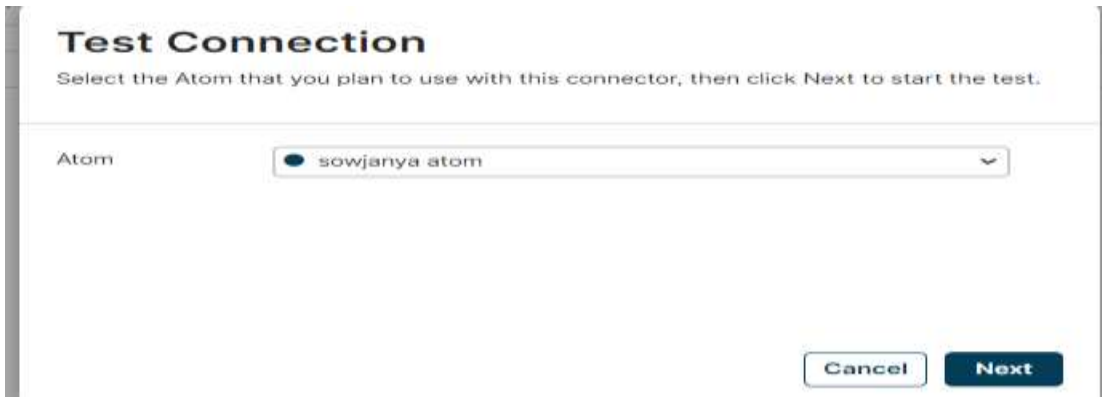
**Password:** \*\*\*\*\*



The screenshot shows a web-based configuration interface for an SFTP connection. The title bar indicates the connection name is "[connection]SFTP V2". The main configuration area is titled "Connection" and includes the following fields:

- Authentication Type: Username and Password (dropdown menu)
- Remote Directory: (empty text field)
- Host: (redacted text field)
- User Name: (redacted text field)
- Password: <Encrypted> (button)
- Port: 22 (text field)
- Client SSH Key File Path: (empty text field)
- Key File Password: <Encrypted> (button)
- Known Host Entry: (empty text field)
- Use Max Key Exchange size of 1024: (checkbox, unchecked)
- Private Key Content: <Encrypted> (button)
- Public Key Content: <Encrypted> (button)
- Key Pair Name: (empty text field)
- Use Keys' content for authentication: (checkbox, unchecked)
- Use Connection Pooling: (checkbox, unchecked)
- Use Proxy: (checkbox, unchecked)
- Choose Proxy Type: ATOM (dropdown menu)
- Proxy Host: (empty text field)
- Proxy Port: (empty text field)
- Proxy Username: (empty text field)
- Proxy Password: Click to Set (button)
- Connection Timeout (ms): (empty text field)

**Step 2.6:** Save the connection component and click on Test Connection and choose your run time engine and click on Next.



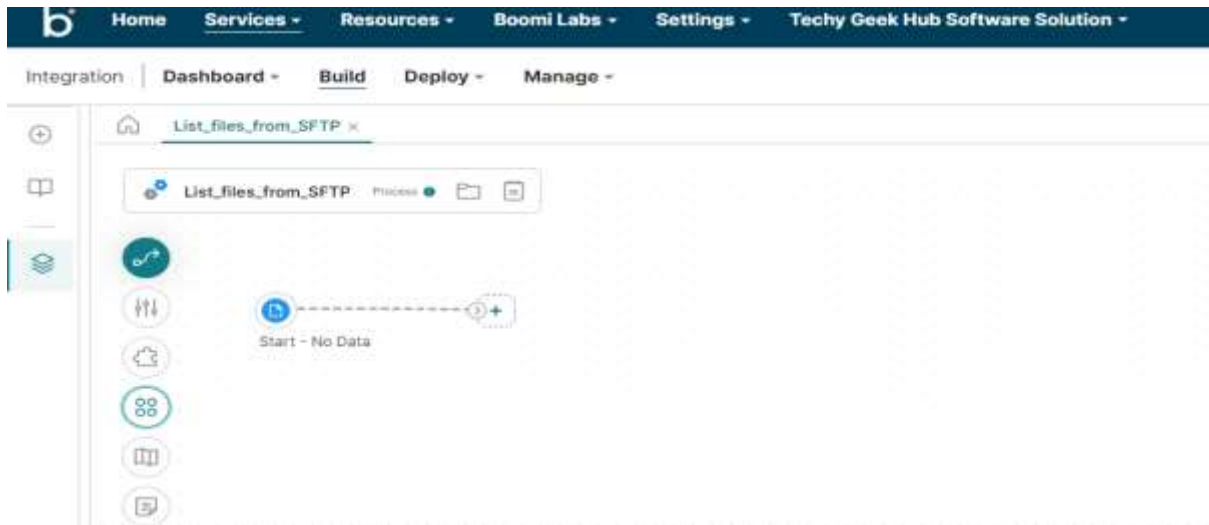
**Step 2.7:** we can see the status as Test connection successful. Click on Finish.



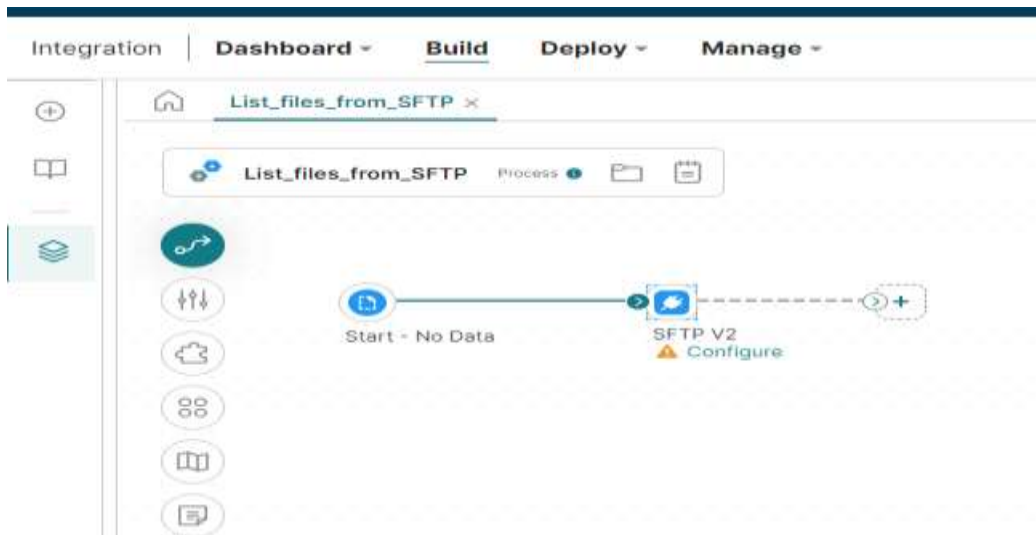
Now we will create a Boomi process which will list the metadata of all the files in specified directory.

## Steps to develop integration process:

### Step 3.1: Create a Process with the name **List\_files\_from\_SFTP**



### Step 3.2: Drag and drop an SFTPV2 connector into the process canvas and attach it to the start shape.



**Step 3.3:** Now configure the SFTP V2 connector.

**Connector Shape** ⓘ

Use connector shapes to get data into and out of a process. Most processes have one "get" connector and one or more "send" connectors. The Connector shape uses a combination of predefined connection and operation components to establish where and how to get or send data.

---

**General** Parameters

Display Name

Connector ⓘ SFTP V2

The SFTP V2 connector allows you to download files from or upload files to the SFTP-enabled server. Learn more about [this connector](#). ⓘ

Connection ⓘ  ⓘ

Action CREATE

Operation ⓘ  ⓘ

**OK** **Cancel**

**Step 3.4:** Choose the connection component that we have created just now and choose the action as LIST from the dropdown.

Use connector shapes to get data into and out of a process. Most processes have one "get" connector and one or more "send" connectors. The Connector shape uses a combination of predefined connection and operation components to establish where and how to get or send data.

---

**General** Parameters

Display Name

Connector ⓘ SFTP V2

The SFTP V2 connector allows you to download files from or upload files to the SFTP-enabled server. Learn more about [this connector](#). ⓘ

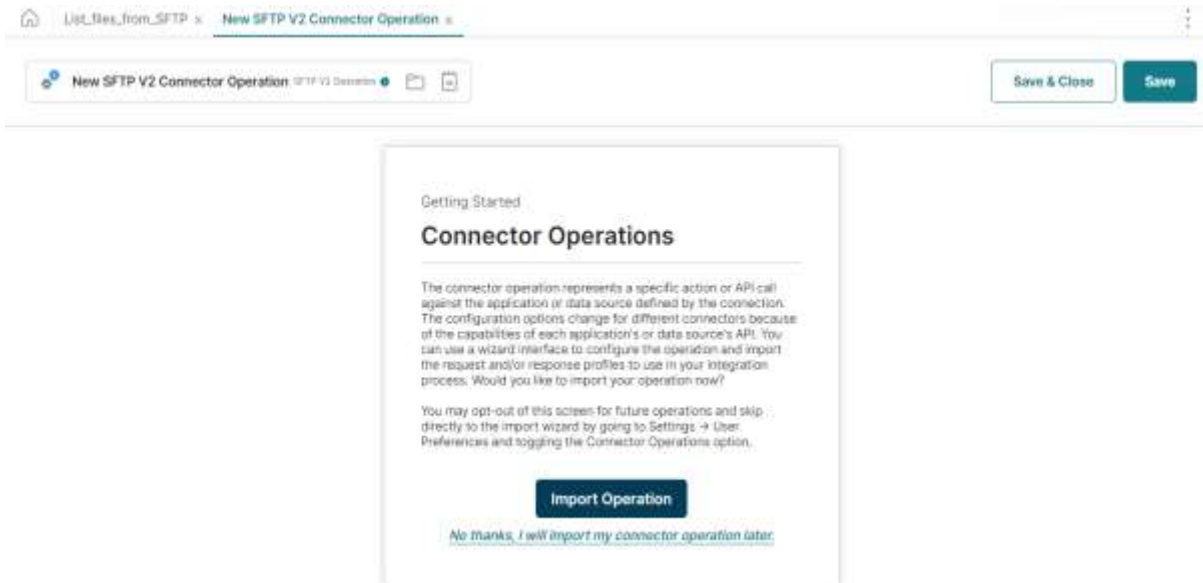
Connection ⓘ  ⓘ

Action LIST

Operation ⓘ  ⓘ

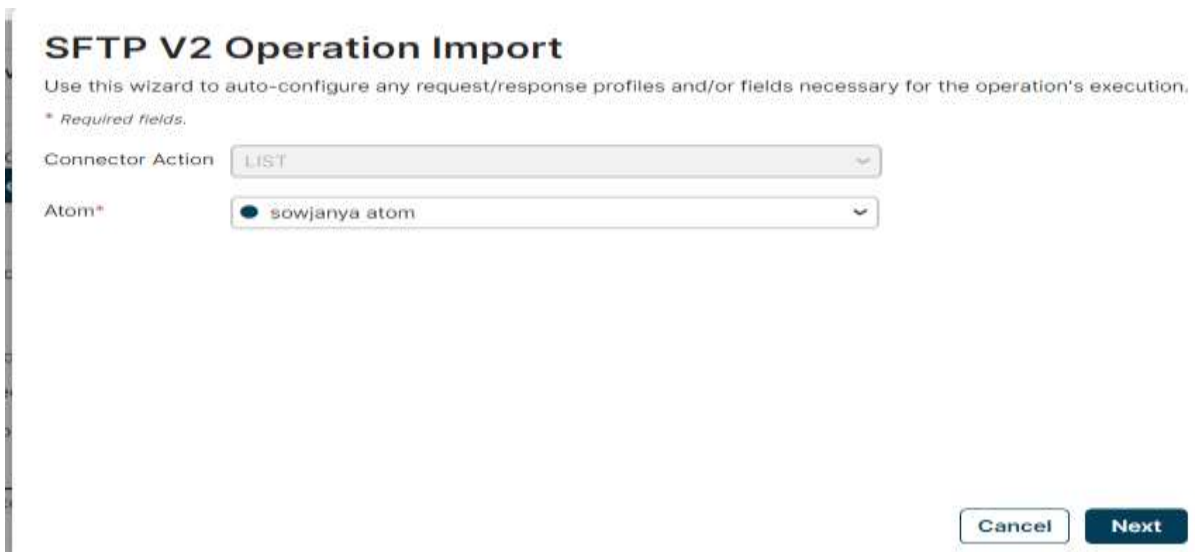
**OK** **Cancel**

**Step 3.5:** Click on + to configure the operation component. The operation component looks as shown below.



**Step 3.6:** Click on Import Operation to automatically import profiles into the Boomi platform.

**Step 3.7:** A new wizard opens as shown below. Choose your atom and click on Next.





**Step 3.8:** Click on Next.

### SFTP V2 Operation Import

Object Type ⓘ Directory

Cancel Back **Next**

**Step 3.9:** Click on Finish.

### SFTP V2 Operation Import

#### Operation Loaded

Object Name Directory

#### Recommended Filters ⓘ

Popular filters for Directory Query on SFTP V2. Select one to apply to your operation.

- No thanks, I will set up my own filters.
- fileName WILDCARD ?
- fileName WILDCARD ? AND isDirectory EQUALS ?
- isDirectory EQUALS ?
- fileName EQUALS ?

Cancel **Finish**

**Step 3.10:** Now the complete operation component will look as shown below. Click on save and close.

List\_files\_from\_SFTP > New SFTP V2 Connector Operation >

New SFTP V2 Connector Operation SFTP V2 Operation ⓘ

Save & Close **Save**

Click Import Operation to add or update the details below.

**Import Operation**

Options Archiving Tracking Caching

Connector Action LIST

Object Directory

Response Profile Unstructured

Tracking Direction ⓘ

Error Behavior

Input Documents  Output Documents

Return Application Error Responses ⓘ

Objects Filters

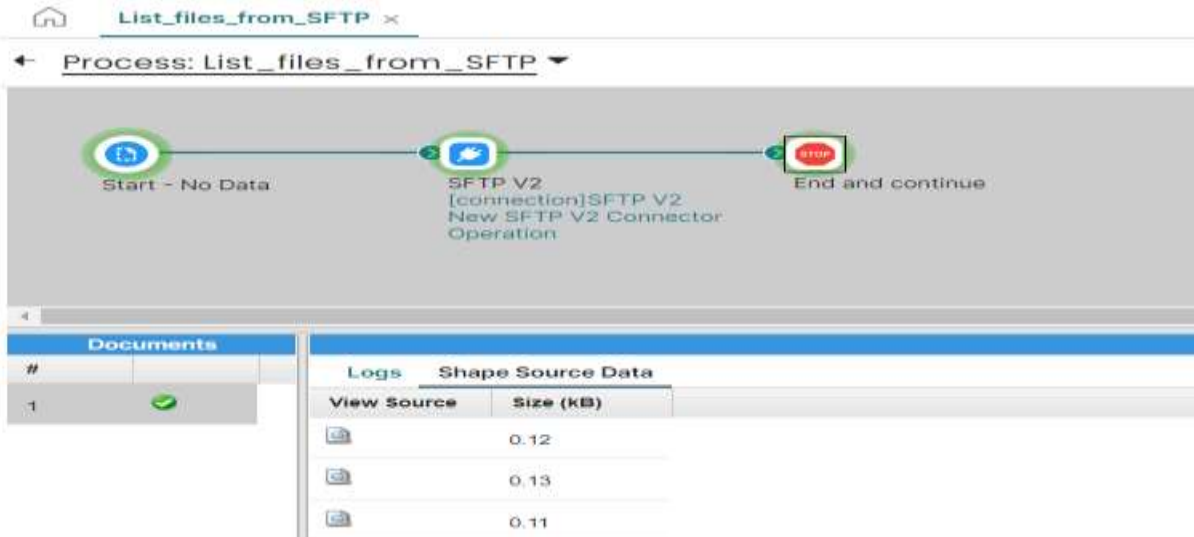
Directory Filter

**Step 3.11:** Now drag and drop a stop shape into the process canvas and attach it to the SFTP V2 connector. The complete process looks as shown below.



**Step 3.12:** Now save the process component and click Test button and choose your atom to test the process.

**Step 3.13:** We can see our process got executed successfully and three documents were retrieved.



Documents		Logs	Shape Source Data
#		View Source	Size (KB)
1			0.12
			0.13
			0.11

**Step 3.14:** Open any document. We can see the metadata of the file as shown below.

## Document Viewer

```
1 {
2   "fileName": "EmployeeDetails.txt",
3   "directory": "/SFTP",
4   "modifiedDate": "2024-02-26T11:45:47Z",
5   "fileSize": 54,
6   "isDirectory": false
7 }
```

Formatted view is on. Formatted view may hide some data for easier reading.

[Download Original Document](#) Size 126 bytes

[Close Document Viewer](#)

In this way we can configure the SFTPV2 Connection and integrate with SFTP enabled server from Boomi platform.

## References:

- <https://help.boomi.com/>
- <https://enterprisedt.com/products/completeftp/free/>
- [https://help.boomi.com/docs/Atomsphere/Integration/Connectors/int-SFTP\\_connector\\_2b8933d7-e4f5-4458-9c4c-04655f18ecf8](https://help.boomi.com/docs/Atomsphere/Integration/Connectors/int-SFTP_connector_2b8933d7-e4f5-4458-9c4c-04655f18ecf8)
- [https://help.boomi.com/docs/Atomsphere/Integration/Connectors/int-SFTP\\_connection\\_918014be-2d25-47f2-8319-8323ae033eb8](https://help.boomi.com/docs/Atomsphere/Integration/Connectors/int-SFTP_connection_918014be-2d25-47f2-8319-8323ae033eb8)
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# TGH

Making Integrations Simpler

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## TGH Software Solutions Pvt. Ltd.

[www.techygeekhub.com](http://www.techygeekhub.com)

At TGH, we specialize in driving digital transformation through seamless Integration Technologies.

Operating as an INTEGRATION FACTORY, we serve as a one-stop shop for all your integration needs. Our expert team is well-versed in enterprise software and legacy system integration, along with leading iPaaS technologies like Boomi, MuleSoft, Workato, OIC, and more.

We're committed to enhancing business processes and solving problems through our integration expertise.



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