SFTP Auto File Transfer Program

`python` `>= 3.6` `paramiko` `2.7.2`

Overview

This Python program facilitates automatic file transfer from one server to another using SFTP. The program reads configurations from `config.py` and uses a JSON file (`sftp.json`) to determine the source and destination paths for file transfer.

Requirements

Ensure you have Python 3.6 or higher installed:

```
pip3 install paramiko
```

Configuration

config.py

1. Set the following parameters in `config.py`:

```
hostname = ''  # Hostname of the target system
username = ''  # Username of the target system
key_filename = '.pem'  # PEM file path of the target system in the source
system OR
key_password = ''  # Password of the target system (used above username)
sftppath = '/opt/outbox'  # Path where you want to send the files on the
target system
logpath = '/opt/SFTP/log'  # Log path for file transfer on the source system
JSONpath = 'sftp.json'  # JSON-based config file path for inbox and outbox
paths
```

sftp.json

2. Configure `sftp.json` with source and destination paths:

```
[
  {
    "source": "File1",
    "path": "/opt/fileonegenofsystem/inbox",
    "outboxpath": "/opt/fileonegenofsystem/outbox"
  }
]
```

How to Run

1. Navigate to the source code directory.

2. Run the following command in the command prompt or shell:

```
python3 index.py
```

or

```
py index.py
```

Working Steps

1. **Configuration Reading:**
   - The `index.py` script reads the configuration from `config.py` and the JSON file specified by `JSONpath`.
2. **Inbox Check:**
   - The program checks the inbox path for files based on the configurations in `sftp.json`.
3. **SFTP Connection:**
   - Initiates an SFTP server connection using the provided details (hostname, username, key_filename/key_password).
4. **File Transfer:**
   - Upon successful connection, it transfers the files to the target destination (`sftppath`).
5. **Outbox Transfer:**
   - After a successful transfer, the program moves the same file to the outbox (`outboxpath`).
6. **Logging:**
   - The system creates logs in the specified log path (`logpath`) for tracking and logging purposes.

Note

- Ensure that both configurations (`config.py` and `sftp.json`) are correctly configured.
- Verify that the specified paths exist.
- Run the program responsibly after thorough configuration checks.