By default, **Flower (FLWR)** is a **federated learning framework**, not a file-sharing tool — it is designed to send **model parameters**, not files like .zip. However, you **can** use **ZeroTier** for file transfer because it creates a **virtual private network (VPN)**.

**✅ Recommended Way: Use ZeroTier + Python Socket/File Transfer Script**

Here's how you can send a .zip file using **ZeroTier**:

**🧩 Step-by-Step to Send a ZIP File over ZeroTier**

**✅ Step 1: Connect Both Devices to the Same ZeroTier Network**

* Go to https://my.zerotier.com
* Ensure both devices are:
  + Joined the same network
  + Authorized
  + Online
  + Have ZeroTier IPs (e.g., 10.147.20.x)

**✅ Step 2: Use Python File Transfer Code**

**🔻 On the Receiver (Server) Machine**

python

Copy code

# server\_receive.py

import socket

s = socket.socket()

s.bind(("0.0.0.0", 5001)) # Bind to all interfaces on port 5001

s.listen(1)

print("Waiting for connection...")

conn, addr = s.accept()

print(f"Connected by {addr}")

with open("received\_file.zip", "wb") as f:

while True:

data = conn.recv(1024)

if not data:

break

f.write(data)

print("File received successfully.")

conn.close()

**🔺 On the Sender (Client) Machine**

python

Copy code

# client\_send.py

import socket

s = socket.socket()

s.connect(("10.147.20.135", 5001)) # Replace with receiver's ZeroTier IP

with open("your\_file.zip", "rb") as f:

data = f.read(1024)

while data:

s.send(data)

data = f.read(1024)

print("File sent successfully.")

s.close()

**⚠️ Notes:**

* Replace 10.147.20.135 with the receiver’s **ZeroTier IP**.
* Run the **server** code first, then the **client**.
* Ensure **port 5001 is open** in the OS firewall if needed.

**✅ Summary**

| **Tool** | **Purpose** |
| --- | --- |
| **ZeroTier** | Creates secure VPN between devices |
| **Python** | Used to send the .zip file |
| **FLWR** | Not suitable for file transfer |

Would you like me to package this into a single .py script or add encryption for safety?

4o