Fix FTP client error 425 Unable to build data connection: No route to host (Cause and Solution)

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I just configured *new dedicated server*. One of requirement was dedicated server to support connections via *FTP transfer protocol* and few users to have access via it.
I added users with required permissions to directory structure and went on to test it with *Linux* **ftp** command, i.e.:

hipo@pcfreak:~$ **ftp remote-host-name**

```
Connected to remote-host-name.com
220 ProFTPD 1.3.3a Server (Matusala) [xx.xxx.xxx.xxx.xx]
Name (Matusala:hipo): testing-user
331 Password required for testing-user
Password:
230 User testing-user logged in

Remote system type is UNIX.
Using binary mode to transfer files.
```

ftp> **ls**

200 PORT command successful
425 Unable to build data connection: No route to host

ftp> exit

221 Goodbye.

As you see from above FTP paste even simple commands like "**ls**" failed to work with error:

425 Unable to build data connection: No route to host

I thought somehow I have configured on server some paranoid firewall, so tested same connection with *iptables rules flushed*, e.g.: **matusala:~# iptables -F**
matusala:~# iptables -t nat -F

Even after flushing firewall message persisted, so I googled around to see the what causes the error. The same error was hit by many users, and as I read, understand what causes is FTP server host is located behind some DMZ or firewall (as it was not my firewall I suppose, the dedicated provider has some firewall rules which are blocking FTP traffic on **standard FTP TCP / UDP ports, port 20 and 21)**.
Fix is to enable in Linux kernel **ip_nat_ftp** or in newer Linux kernels module **nf_nat_ftp**:

matusala:~# modprobe ip_nat_ftp
matusala:~# modprobe nf_nat_ftp

or
To make **ip_nat_ftp** load permanently on *Debian and Ubuntu servers*:

matusala:~# echo 'ip_nat_ftp' >> /etc/modules
matusala:~# echo 'nf_nat_ftp' >> /etc/modules

One important note to make here is if you're testing the connection between two Linux servers it is possible the server from which you're running the client to have missing **nf_nat_ftp** loaded, so if error persist and you're testing remote FTP server from local ftp client on linux load same modules on localhost and you're done :)