

[FTP] The remote server returned an error: 227 Entering Passive Mode

Last updated by | Jackie Huang | Jan 4, 2022 at 12:24 AM PST

1. Symptoms

When copying files from FTP server, hit the following error:

```
ErrorCode=FtpFailedToReadFtpData,'Type=Microsoft.DataTransfer.Common.Shared.HybridDeliveryException,Message=Failed to read FTP data. Message: 'Failed to read data from ftp: The remote server returned an error: 227 Entering Passive Mode (*,*,*,*,*,*).',Source=Microsoft.DataTransfer.ClientLibrary,'Type=System.Net.WebException,Message=The remote server returned an error: 227 Entering Passive Mode (*,*,*,*,*,*).,Source=System,'Type=System.Net.Sockets.SocketException,Message=A connection attempt failed because the connected party did not properly respond after a period of time, or established connection failed because connected host has failed to respond *.*.*.*,Source=System,'"
```

2. Cause

ADF only supports FTP server running in passive mode.

In passive mode, the client(ADF) connects from a random unprivileged port($N > 1023$) to the FTP server's command port(default port 21). If needs to transfer data, the sever will open another port in the passive port range and tell the client: "Hi, I opened port ****, please connect to me." and then client will initiate the data connection to that sever port.

By default, the passive port range is 1024-65535, and it is configurable on some FTP server.

So the FTP server's firewall should allow inbound connections on ports 21 and 1024 through 65535(or port range set on server).

2. Solution

On FTP server side, open port 21 and 1024-65535(or port range set on server) to SHIR/Azure IR IP address.