

# Bitfusion-FlexDirect Client and Server Installation and Usage Guide

## PREREQUITES

1. Server needs to have
  - a. Nvidia-driver
  - b. Cuda Run-Time Library
  - c. Cuda Developer Library
2. Clients needs to have
  - a. Cuda Run-Time Library
  - b. Cuda Developer Library
  - c. Tensorflow Gpu (if needed)

## SERVER-SIDE

```
# Download the install script
wget -O installfd getfd.bitfusion.io

# run install with option for flexdirect mode, a systemd server
sudo bash installfd -- -m srs
# Answer 'y' on installing any dependencies
# Answer for starting the service does not matter, since you still need to initialize
# the license

# Initialize the license
sudo flexdirect init
# Accept the EULA
# Enter your license key at prompt(issued by your representative at Bitfusion)

# Start the flexdirect service, then verify it is active
# sudo systemctl start flexdirect
# systemctl status flexdirect
```

## CLIENT-SIDE

```
# Download the install script
wget -O installfd getfd.bitfusion.io

# run install with option for client mode (just the binaries)
sudo bash installfd -- -m binaries
# Answer 'y' on installing any dependencies

# Initialize the license
sudo flexdirect init
# Accept the EULA
# Enter your license key at prompt(issued by your representative at Bitfusion)
```

## SETTING UP CONNECTION

```
# Add server-list ip to the below file, all clients and servers should contain this file
$ sudo vim /etc/bitfusionio/servers.conf
```

## USAGE

```
# check if client can detect server gpus
    $ flexdirect list_gpus
# check the health of all nodes
    $ flexdirect health
# check the health of self node
    $ flexdirect localhealth
# run application on server gpu (client side)
    $ flexdirect run -n 1 <application>
# setup new connection between server and client on port 56003
    # Add <serverip><56003> to servers.conf (client side)
    $ flexdirect resource-scheduler -p 56003 (server side)
    $ flexdirect run -n 1 <application> (client side)
```