

Task 1- Does client takes the entire data to master or does master provides the IP addresses of Datanodes so that client can upload the file to the Datanodes.










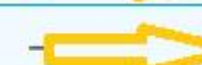

Question- Who is the one uploading the file?

Answer- Client gets the IP from Master and uploads the file to DataNode.

Task 2-

Question: Does client go to master and then read the file on slave via Master or Does Client go to slave directly and read the data?

Answer: Client goes to slave directly and reads the data stored on slave.

ec2-3-15-31-172.us-e...	3.15.31.172		Slave 2		172.31.5.191
ec2-3-16-135-239.us-...	3.16.135.239		Client		172.31.15.170
ec2-3-137-165-13.us-...	3.137.165.13		Master Node		172.31.10.166
- 	3.137.173.63 		Slave 1		172.31.4.183 
Public IPv4 DNS	Public IPv4 Address				Private IP Address

root@ip-172-31-10-166:~# Master Private IP

```
0x0010:  ac1f 0aa6 b3ea 2329 09d0 6c79 febc 511b  ....#)...ly..Q.
0x0020:  8010 0351 64c9 0000 0101 080a 0592 be8f  ...Qd.....
0x0030:  de13 67aa  ....
08:06:11.691051 IP ec2-3-16-135-239.us-east-2.compute.amazonaws.com.47962 > ip-1
72-31-10-166.us-east-2.compute.internal.etlservicemgr: Flags [S], seq 620692863,
win 26883, options [mss 1460,sackOK,TS val 187185768 ecr 0,nop,wscale 7], lengt
h 0
0x0000:  4500 003c 0570 4000 3f06 f487 0310 87ef  E..<.p@.?.....
0x0010:  ac1f 0aa6 bb5a 2329 24ff 057f 0000 0000  ....Z#)$.....
0x0020:  a002 6903 4ea6 0000 0204 05b4 0402 080a  ...i.N.....
0x0030:  0b28 3a68 0000 0000 0103 0307  ....(:h.....
08:06:11.691097 IP ip-172-31-10-166.us-east-2.compute.internal.etlservicemgr > e
c2-3-16-135-239.us-east-2.compute.amazonaws.com.47962: Flags [S.], seq 274243389
3, ack 620692864, win 26847, options [mss 8961,sackOK,TS val 2070183292 ecr 1871
85768,nop,wscale 7], length 0
0x0000:  4500 003c 0000 4000 4006 f8f7 ac1f 0aa6  E..<...@.@.....
0x0010:  0310 87ef 2329 bb5a a376 3865 24ff 0580  ....#).Z.v8e$...
0x0020:  a012 68df 41f3 0000 0204 2301 0402 080a  ...h.A.....#.....
0x0030:  7b64 7d7c 0b28 3a68 0103 0307  ....{d}|.(:h....
08:06:11.691464 IP ec2-3-16-135-239.us-east-2.compute.amazonaws.com.47962 > ip-1
72-31-10-166.us-east-2.compute.internal.etlservicemgr: Flags [.] , ack 1, win 211
, options [nop,nop,TS val 187185769 ecr 2070183292], length 0
0x0000:  4500 0034 0571 4000 3f06 f48e 0310 87ef  E..4.q@.?.....
0x0010:  ac1f 0aa6 bb5a 2329 24ff 0580 a376 3866  ....Z#)$....v8f
0x0020:  8010 00d3 10d4 0000 0101 080a 0b28 3a69  ....(:i
0x0030:  7b64 7d7c  ....{d}|
08:06:11.697339 IP ec2-3-16-135-239.us-east-2.compute.amazonaws.com.47962 > ip-1
72-31-10-166.us-east-2.compute.internal.etlservicemgr: Flags [P.], seq 1:7, ack
1, win 211, options [nop,nop,TS val 187185775 ecr 2070183292], length 6
0x0000:  4500 003a 0572 4000 3f06 f487 0310 87ef  E...:r@.?.....
0x0010:  ac1f 0aa6 bb5a 2329 24ff 0580 a376 3866  ....Z#)$....v8f
0x0020:  8018 00d3 339a 0000 0101 080a 0b28 3a6f  ....3.....(:o
0x0030:  7b64 7d7c 6872 7063 0450  ....{d}|hrpc.P
08:06:11.697352 IP ip-172-31-10-166.us-east-2.compute.internal.etlservicemgr > e
c2-3-16-135-239.us-east-2.compute.amazonaws.com.47962: Flags [.] , ack 7, win 210
, options [nop,nop,TS val 2070183298 ecr 187185775], length 0
0x0000:  4500 0034 3503 4000 4006 c3fc ac1f 0aa6  E..45.@.@.....
0x0010:  0310 87ef 2329 bb5a a376 3866 24ff 0586  ....#).Z.v8f$...
0x0020:  8010 00d2 41eb 0000 0101 080a 7b64 7d82  ....A.....{d}.
0x0030:  0b28 3a6f  .....(:o
08:06:11.703137 IP ec2-3-16-135-239.us-east-2.compute.amazonaws.com.47962 > ip-1
72-31-10-166.us-east-2.compute.internal.etlservicemgr: Flags [P.], seq 7:178, ac
k 1, win 211, options [nop,nop,TS val 187185781 ecr 2070183298], length 171
0x0000:  4500 00df 0573 4000 3f06 f3e1 0310 87ef  E....s@.?.....
0x0010:  ac1f 0aa6 bb5a 2329 24ff 0586 a376 3866  ....Z#)$....v8f
0x0020:  8018 00d3 6868 0000 0101 080a 0b28 3a75  ....hh.....(:u
0x0030:  7b64 7d82 0000 0037 2e6f 7267 2e61 7061  {d}....7.org.apa
0x0040:  6368 652e 6861 646f 6f70 2e68 6466 732e  che.hadoop.hdfs.
0x0050:  7072 6f74 6f63 6f6c 2e43 6c69 656e 7450  protocol.ClientP
0x0060:  726f 746f 636f 6c01 0004 726f 6f74 0000  rotocol...root..
```

Client Public IP DNS

Packets from client to master

Uploading
File to the
File System



Type here to search




```

root@ip-172-31-10-166:~
0x0080: 6864 6673 2e70 726f 746f 636f 6c2e 4864  hdfs.protocol.Hd
0x0090: 6673 4669 6c65 5374 6174 7573 0000 0000  fsFileStatus....
0x00a0: 0000 0000 0000 0000 0100 0000 0000 0000  .....
0x00b0: 0000 0000 0001 7507 3bc1 0200 0000 0000  .....u.;.....
0x00c0: 0000 0001 ed04 726f 6f74 0a73 7570 6572  .....root.super
0x00d0: 6772 6f75 70                                group
08:06:11.739685 IP ec2-3-16-135-239.us-east-2.compute.amazonaws.com.47962 > ip-1
72-31-10-166.us-east-2.compute.internal.etlservicemgr: Flags [P.], seq 224:270,
ack 184, win 219, options [nop,nop,TS val 187185817 ecr 2070183335], length 46
0x0000: 4500 0062 0576 4000 3f06 f45b 0310 87ef  E..b.v@.?.[....
0x0010: ac1f 0aa6 bb5a 2329 24ff 065f a376 391d  ....Z#)$..._v9.
0x0020: 8018 00db 636a 0000 0101 080a 0b28 3a99  ....cj.....(:.
0x0030: 7b64 7da7 0000 002a 0000 0002 000b 6765  {d}....*.....ge
0x0040: 7446 696c 6549 6e66 6f00 0000 0100 106a  tFileInfo.....j
0x0050: 6176 612e 6c61 6e67 2e53 7472 696e 6700  ava.lang.String.
0x0060: 012f                                          ./
08:06:11.739966 IP ip-172-31-10-166.us-east-2.compute.internal.etlservicemgr > e
c2-3-16-135-239.us-east-2.compute.amazonaws.com.47962: Flags [P.], seq 184:345,
ack 270, win 219, options [nop,nop,TS val 2070183341 ecr 187185817], length 161
0x0000: 4500 00d5 3507 4000 4006 c357 ac1f 0aa6  E...5.@.@..W....
0x0010: 0310 87ef 2329 bb5a a376 391d 24ff 068d  ....#).Z.v9.$...
0x0020: 8018 00db 428c 0000 0101 080a 7b64 7dad  ....B.....{d}.
0x0030: 0b28 3a99 0000 0002 0000 0000 002e 6f72  .(:.....or
0x0040: 672e 6170 6163 6865 2e68 6164 6f6f 702e  g.apache.hadoop.
0x0050: 6864 6673 2e70 726f 746f 636f 6c2e 4864  hdfs.protocol.Hd
0x0060: 6673 4669 6c65 5374 6174 7573 002e 6f72  fsFileStatus..or
0x0070: 672e 6170 6163 6865 2e68 6164 6f6f 702e  g.apache.hadoop.
0x0080: 6864 6673 2e70 726f 746f 636f 6c2e 4864  hdfs.protocol.Hd
0x0090: 6673 4669 6c65 5374 6174 7573 0000 0000  fsFileStatus....
0x00a0: 0000 0000 0000 0000 0100 0000 0000 0000  .....
0x00b0: 0000 0000 0001 7507 3bc1 0200 0000 0000  .....u.;.....
0x00c0: 0000 0001 ed04 726f 6f74 0a73 7570 6572  .....root.super
0x00d0: 6772 6f75 70                                group
08:06:11.740946 IP ec2-3-16-135-239.us-east-2.compute.amazonaws.com.47962 > ip-1
72-31-10-166.us-east-2.compute.internal.etlservicemgr: Flags [P.], seq 270:323,
ack 345, win 227, options [nop,nop,TS val 187185818 ecr 2070183341], length 53
0x0000: 4500 0069 0577 4000 3f06 f453 0310 87ef  E..i.w@.?.S....
0x0010: ac1f 0aa6 bb5a 2329 24ff 068d a376 39be  ....Z#)$....v9.
0x0020: 8018 00e3 b074 0000 0101 080a 0b28 3a9a  ....t.....(:.
0x0030: 7b64 7dad 0000 0031 0000 0003 000b 6765  {d}....1.....ge
0x0040: 7446 696c 6549 6e66 6f00 0000 0100 106a  tFileInfo.....j
0x0050: 6176 612e 6c61 6e67 2e53 7472 696e 6700  ava.lang.String.
0x0060: 082f 6161 612e 7478 74                      ./aaa.txt
08:06:11.741137 IP ip-172-31-10-166.us-east-2.compute.internal.etlservicemgr > e
c2-3-16-135-239.us-east-2.compute.amazonaws.com.47962: Flags [P.], seq 345:482,
ack 323, win 219, options [nop,nop,TS val 2070183342 ecr 187185818], length 137
0x0000: 4500 00bd 3508 4000 4006 c36e ac1f 0aa6  E...5.@.@..n....
0x0010: 0310 87ef 2329 bb5a a376 39be 24ff 06c2  ....#).Z.v9.$...
0x0020: 8018 00db 4274 0000 0101 080a 7b64 7dae  ....Bt.....{d}.
0x0030: 0b28 3a9a 0000 0003 0000 0000 001d 6f72  .(:.....or

```

Client replying with the file name and the location for upload to the master in payload.

root@ip-172-31-10-166:~

```
0x0050: 2e6c 616e 672e 5374 7269 6e67 0008 2f61 .lang.String../a
0x0060: 6161 2e74 7874 0010 6a61 7661 2e6c 616e aa.txt..java.lan
0x0070: 672e 5374 7269 6e67 0024 4446 5343 6c69 g.String.$DFSCLI
0x0080: 656e 745f 4e4f 4e4d 4150 5245 4455 4345 ent_NONMAPREDUCE
0x0090: 5f2d 3139 3433 3730 3137 3131 5f31 001d _-1943701711_1..
0x00a0: 6f72 672e 6170 6163 6865 2e68 6164 6f6f org.apache.hadoop
0x00b0: 702e 696f 2e57 7269 7461 626c 6500 306f p.io.Writable.0o
0x00c0: 7267 2e61 7061 6368 652e 6861 646f 6f70 rg.apache.hadoop
0x00d0: 2e69 6f2e 4f62 6a65 6374 5772 6974 6162 .io.ObjectWritab
0x00e0: 6c65 244e 756c 6c49 6e73 7461 6e63 6500 le$NullInstance.
0x00f0: 2f5b 4c6f 7267 2e61 7061 6368 652e 6861 /[Lorg.apache.ha
0x0100: 646f 6f70 2e68 6466 732e 7072 6f74 6f63 doop.hdfs.protoc
0x0110: 6f6c 2e44 6174 616e 6f64 6549 6e66 6f3b ol.DatanodeInfo;
08:06:11 769322 IP ip-172-31-10-166.us-east-2.compute.internal.etlservicemgr > e
2-3-16-135-239 us-east-2.compute.amazonaws.com.47962: Flags [P.], seq 577:1061,
ack 190, win 235, options [nop,nop,TS val 2070183370 ecr 187185846], length 434
0x0000: 4500 0218 350a 4000 4006 c211 ac1f 0aa6 E...5.@.....
0x0010: 0310 87ef 2329 bb5a a376 3aa6 24ff 0895 ....#).Z.v:.$...
0x0020: 8018 00eb 43cf 0000 0101 080a 7b64 7dca ....C.....{d}.
0x0030: 0b28 3ab6 0000 0005 0000 0000 002c 6f72 .(:.....,or
0x0040: 672e 6170 6163 6865 2e68 6164 6f6f 702e g.apache.hadoop.
0x0050: 6864 6673 2e70 726f 746f 636f 6c2e 4c6f hdfs.protocol.Lo
0x0060: 6361 7465 6442 6c6f 636b 002c 6f72 672e catedBlock.,org.
0x0070: 6170 6163 6865 2e68 6164 6f6f 702e 6864 apache.hadoop.hd
0x0080: 6673 2e70 726f 746f 636f 6c2e 4c6f 6361 fs.protocol.Loca
0x0090: 7465 6442 6c6f 636b 0000 0000 0000 0000 tedBlock.....
0x00a0: 0000 0000 0074 c449 d770 b00d 2400 0000 .....t.I.p.$...
0x00b0: 0000 0000 0000 0000 0000 0004 3200 0000 .....2....
0x00c0: 0200 1133 2e31 352e 3331 2e31 3732 3a35 ...3.15.31.172:5
0x00d0: 3030 3130 002e 4453 2d31 3434 3531 3232 0010 ns-1445122
0x00e0: 3439 362d 3137 322e 3331 2e35 2e31 3931 496-172.31.5.191
0x00f0: 2d35 3030 3130 2d31 3630 3231 3338 3939 -50010-160213899
0x0100: 3331 3537 c39b c364 0000 0002 7f3f b000 3157...d.....?..
0x0110: 0000 0000 020f 7cfb 0000 0002 0ab7 f000 .....|.....
0x0120: 0000 0175 073f 011b 0000 0001 0d2f 6465 ....u.?...../de
0x0130: 6661 756c 742d 7261 636b 2a69 702d 3137 fault-rack*ip-17
0x0140: 322d 3331 2d35 2d31 3931 2e75 732d 6561 2-31-5-191.us-ea
0x0150: 7374 2d32 2e63 6f6d 7075 7465 2e69 6e74 st-2.compute.int
0x0160: 6572 6e61 6c06 4e4f 524d 414c 0012 332e ernal.NORMAL.3.
0x0170: 3133 372e 3137 332e 3633 3a35 3030 3130 137.173.63.50010
0x0180: 002e 4453 2d31 3833 3631 3536 3636 392d ..DS-1836156669-
0x0190: 3137 322e 3331 2e34 2e31 3833 2d35 3030 172.31.4.183-500
0x01a0: 3130 2d31 3630 3039 3638 3938 3935 3130 10-1600968989510
0x01b0: c39b c364 0000 0002 7f3f b000 0000 0000 ...d.....?.....
0x01c0: 020f 5f93 0000 0002 0202 a000 0000 0175 .._.....u
0x01d0: 073f 024a 0000 0001 0d2f 6465 6661 756c .?.J....../defaul
0x01e0: 742d 7261 636b 2a69 702d 3137 322d 3331 t-rack*ip-172-31
0x01f0: 2d34 2d31 3833 2e75 732d 6561 7374 2d32 -4-183.us-east-2
0x0200: 2e63 6f6d 7075 7465 2e69 6e74 6572 6e61 .compute.interna
0x0210: 6c06 4e4f 524d 414c I.NORMAL
```

Client
IP


Master Sending IP
addresses of both slaves
to the client.

Public IP address Slave2


Private IP Slave 2


Public IP Slave 1

Private IP Slave 1

root@ip-172-31-5-191:~  Slave 2

```
[root@ip-172-31-5-191 ~]# tcpdump -i eth0 tcp port 50010 -X
tcpdump: verbose output suppressed, use -v or -vv for full protocol decode
listening on eth0, link type EN10MB (Ethernet), capture size 262144 bytes
08:06:11.777131 IP ec2-3-16-135-239.us-east-2.compute.amazonaws.com.57352 > ip-172-31-5-191.us-east-2.compute.internal.50010: Flags [S], seq 1343374527, win 26833, options [mss 1460,sackOK,TS val 2080042863 ecr 0,nop,wscale 7], length 0
    0x0000: 4500 003c 1c45 4000 3f06 e299 0310 87ef  E..<.E@.?.....
    0x0010: ac1f 05bf e008 c35a 5012 44bf 0000 0000  ....ZP.D.....
    0x0020: a002 6903 fe7f 0000 0204 05b4 0402 080a  ...i.....
    0x0030: 7bfa ef6f 0000 0000 0103 0307  ....{..o.....
08:06:11.777167 IP ip-172-31-5-191.us-east-2.compute.internal.50010 > ec2-3-16-135-239.us-east-2.compute.amazonaws.com.57352: Flags [S.], seq 1179577382, ack 1343374528, win 26847, options [mss 8961,sackOK,TS val 305715752 ecr 2080042863,nop,wscale 2], length 0
    0x0000: 4500 003c 0000 4000 4006 fdde ac1f 05bf  E..<..@.@.....
    0x0010: 0310 87ef c35a e008 464e ec26 5012 44c0  ....Z..FN.&P.D.
    0x0020: a012 68df 3d0c 0000 0204 2301 0402 080a  ..h.=.....#.....
    0x0030: 1238 da28 7bfa ef6f 0103 0302  ....8.({..o....
08:06:11.777523 IP ec2-3-16-135-239.us-east-2.compute.amazonaws.com.57352 > ip-172-31-5-191.us-east-2.compute.internal.50010: Flags [.], ack 1, win 211, options [nop,nop,TS val 2080042863 ecr 305715752], length 0
    0x0000: 4500 0034 1c46 4000 3f06 e2a0 0310 87ef  E..4.F@.?.....
    0x0010: ac1f 05bf e008 c35a 5012 44c0 464e ec27  ....ZP.D.FN.'
    0x0020: 8010 00d3 7695 0000 0101 080a 7bfa ef6f  ....v.....{..o
    0x0030: 1238 da28  ....8.{
08:06:11.808503 IP ec2-3-16-135-239.us-east-2.compute.amazonaws.com.57352 > ip-172-31-5-191.us-east-2.compute.internal.50010: Flags [P.], seq 1:248, ack 1, win 211, options [nop,nop,TS val 2080042894 ecr 305715752], length 247
    0x0000: 4500 012b 1c47 4000 3f06 e1a8 0310 87ef  E..+.G@.?.....
    0x0010: ac1f 05bf e008 c35a 5012 44c0 464e ec27  ....ZP.D.FN.'
    0x0020: 8018 00d3 e418 0000 0101 080a 7bfa ef8e  ....{...
    0x0030: 1238 da28 0011 5074 c449 d770 b00d 2400  .8.(..Pt.I.p.$
    0x0040: 0000 0000 0004 3200 0000 0200 2444 4653  ....2.....$DFS
    0x0050: 436c 6965 6e74 5f4e 4f4e 4d41 5052 4544  Client NONMAPRED
    0x0060: 5543 455f 2d31 3934 3337 3031 3731 315f  ....1..3.137.17
    0x0070: 3100 0000 0001 0012 332e 3133 372e 3137  3.63:50010..DS-1
    0x0080: 332e 3633 3a35 3030 3130 002e 4453 2d31  836156669-172.31
    0x0090: 3833 3631 3536 3636 392d 3137 322e 3331  .4.183-50010-160
    0x00a0: 2e34 2e31 3833 2d35 3030 3130 2d31 3630  0968989510...d..
    0x00b0: 3039 3638 3938 3935 3130 c39b c364 0000  ...?....._...
    0x00c0: 0002 7f3f b000 0000 0000 020f 5f93 0000  ....u.?..J..
    0x00d0: 0002 0202 a000 0000 0175 073f 024a 0000  ..../default-rack
    0x00e0: 0001 0d2f 6465 6661 756c 742d 7261 636b  *ip-172-31-4-183
    0x00f0: 2a69 702d 3137 322d 3331 2d34 2d31 3833  .us-east-2.compu
    0x0100: 2e75 732d 6561 7374 2d32 2e63 6f6d 7075  te.internal.NORM
    0x0110: 7465 2e69 6e74 6572 6e61 6c06 4e4f 524d  AL.....
    0x0120: 414c 0000 0000 0100 0002 00
08:06:11.808518 IP ip-172-31-5-191.us-east-2.compute.internal.50010 > ec2-3-16-135-239.us-east-2.compute.amazonaws.com.57352: Flags [.], ack 248, win 6980, options [nop,nop,TS val 305715784 ecr 2080042894], length 0
```

 Client contacting directly to the slave 2 after taking its IP from master.

 Client sending the IP of another slave- (Slave 1) to the Slave 2 to copy the file in Slave 1



Type here to search



root@ip-172-31-5-191:~

```
0x0030: 1238 da4c
08:06:11.825757 IP ec2-3-16-135-239.us-east-2.compute.amazonaws.com.57352 > ip-1
72-31-5-191.us-east-2.compute.internal.50010: Flags [P.], seq 248:930, ack 4, wi
n 211, options [nop,nop,TS val 2080042911 ecr 30515788], length 682
 0x0000: 4500 02de 1c4a 4000 3f06 dff2 0310 87ef E....J@.?......
 0x0010: ac1f 05bf e008 c35a 5012 45b7 464e ec2a .....ZP.E.FN.*
 0x0020: 8018 00d3 1374 0000 0101 080a 7bfa ef9f .....t.....{...
 0x0030: 1238 da4c 0000 0295 0000 0000 0000 0000 .8.L.....
 0x0040: 0000 0000 0000 0000 0100 0002 891a 6636 .....f6
 0x0050: 63e5 8fad e776 6277 656a 6276 776a 6562 c....vbwejvbwjeb
 0x0060: 7677 6865 6276 6c77 6b65 626c 7765 6b62 vwhebvwlwkeblwekb
 0x0070: 766c 7756 4448 5742 2e57 2c4b 4856 2042 vlvVDHwB.W,KHV.B
 0x0080: 772c 6876 6220 5748 4b56 5742 4856 420a w,hvb.WHKVWBHVB.
 0x0090: 7662 7765 6a62 7677 6a65 6276 7768 6562 vbwejvbwjebvwhebv
 0x00a0: 766c 776b 6562 6c77 656b 6276 6c77 5644 vlwkeblwkebvvlwVD
 0x00b0: 4857 422e 572c 4b48 5620 4277 2c68 7662 HwB.W,KHV.Bw,hvb
 0x00c0: 2057 484b 5657 4248 5642 0a76 6277 656a .WHKVWBHVB.vbwej
 0x00d0: 6276 776a 6562 7677 6865 6276 6c77 6b65 bvwejvbwhebvwlwke
 0x00e0: 626c 7765 6b62 766c 7756 4448 5742 2e57 blwkebvvlwVDHwB.W
 0x00f0: 2c4b 4856 2042 772c 6876 6220 5748 4b56 ,KHV.Bw,hvb.WHKV
 0x0100: 5742 4856 420a 7662 7765 6a62 7677 6a65 WBHVB.vbwejvbwje
 0x0110: 6276 7768 6562 766c 776b 6562 6c77 656b bvwebvwlwkeblwek
 0x0120: 6276 6c77 5644 4857 422e 572c 4b48 5620 bvlwVDHwB.W,KHV.
 0x0130: 4277 2c68 7662 2057 484b 5657 4248 5642 Bw,hvb.WHKVWBHVB
 0x0140: 0a76 6277 656a 6276 776a 6562 7677 6865 .vbwejvbwjebvwhe
 0x0150: 6276 6c77 6b65 626c 7765 6b62 766c 7756 bvlwkeblwkebvvlwV
 0x0160: 4448 5742 2e57 2c4b 4856 2042 772c 6876 DHwB.W,KHV.Bw,hv
 0x0170: 6220 5748 4b56 5742 4856 420a 7662 7765 b.WHKVWBHVB.vbwe
 0x0180: 6a62 7677 6a65 6276 7768 6562 766c 776b jbvwejvbwhebvwlwke
 0x0190: 6562 6c77 656b 6276 6c77 5644 4857 422e eblwkebvvlwVDHwB.
 0x01a0: 572c 4b48 5620 4277 2c68 7662 2057 484b W,KHV.Bw,hvb.WHK
 0x01b0: 5657 4248 5642 0a76 6277 656a 6276 776a VWBHVB.vbwejvbwj
 0x01c0: 6562 7677 6865 6276 6c77 6b65 626c 7765 ebvwhebvwlwkeblwe
 0x01d0: 6b62 766c 7756 4448 5742 2e57 2c4b 4856 kbvvlwVDHwB.W,KHV
 0x01e0: 2042 772c 6876 6220 5748 4b56 5742 4856 .Bw,hvb.WHKVWBHVB
 0x01f0: 420a 7662 7765 6a62 7677 6a65 6276 7768 B.vbwejvbwjebvwh
 0x0200: 6562 766c 776b 6562 6c77 656b 6276 6c77 ebvlwkeblwkebvvlw
 0x0210: 5644 4857 422e 572c 4b48 5620 4277 2c68 VDHwB.W,KHV.Bw,h
 0x0220: 7662 2057 484b 5657 4248 5642 0a76 6277 vb.WHKVWBHVB.vbw
 0x0230: 656a 6276 776a 6562 7677 6865 6276 6c77 ejbvwejvbwhebvvlw
 0x0240: 6b65 626c 7765 6b62 766c 7756 4448 5742 keblwkebvvlwVDHwB
 0x0250: 2e57 2c4b 4856 2042 772c 6876 6220 5748 .W,KHV.Bw,hvb.WH
 0x0260: 4b56 5742 4856 420a 7662 7765 6a62 7677 KVWBHVB.vbwejvbw
 0x0270: 6a65 6276 7768 6562 766c 776b 6562 6c77 jebvwhebvwlwkeblw
 0x0280: 656b 6276 6c77 5644 4857 422e 572c 4b48 ekbvlwVDHwB.W,KH
 0x0290: 5620 4277 2c68 7662 2057 484b 5657 4248 V.Bw,hvb.WHKVWBH
 0x02a0: 5642 0a76 6277 656a 6276 776a 6562 7677 VB.vbwejvbwjebvw
 0x02b0: 6865 6276 6c77 6b65 626c 7765 6b62 766c hebvlwkeblwkebvvl
 0x02c0: 7756 4448 5742 2e57 2c4b 4856 2042 772c wVDHwB.W,KHV.Bw,
 0x02d0: 6876 6220 5748 4b56 5742 4856 420a hvb.WHKVWBHVB.
```

Client sending the data to Slave 2 in the payload of data packet.

Data of the file aaa.txt Uploaded to file system by client.



Type here to search



root@ip-172-31-5-191:~

```
0x02a0: 5642 0a76 6277 656a 6276 776a 6562 7677 VB.vbwejbvbwjebvw
0x02b0: 6865 6276 6b65 626c 7765 6b62 766c hebvlwkeblwekb
0x02c0: 7756 4448 5742 2e57 2c4b 4856 2042 772c wVDHwB.W,KHV.Bw,
0x02d0: 6876 6220 5748 4b56 5742 4856 420a w,hvb.WHKVWBHV.B
08:06:11.825831 IP ip-172-31-5-191.us-east-2.compute.internal.34138 > ec2-3-137-
173-63.us-east-2.compute.amazonaws.com.50010: Flags [P.], seq 76:758, ack 4, win
211, options [nop,nop,TS val 1544459852 ecr 2626601421], length 682
0x0000: 4500 02de 2558 4000 4006 b01b ac1f 05bf E...%X@.@.....
0x0010: 0389 ad3f 855a c35a 09de 9a33 4a91 450e ...?.Z.Z...3J.E.
0x0020: 8018 00d3 6577 0000 0101 080a 5c0e 964c ....ew.....\..I
0x0030: 9c8e c1cd 0000 0295 0000 0000 0000 0000 .....
0x0040: 0000 0000 0000 0000 0100 0002 891a 6636 .....f6
0x0050: 63e5 8fad e776 6277 656a 6276 776a 6562 c....vbwejbvbwjeb
0x0060: 7677 6865 6276 6c77 6b65 626c 7765 6b62 vwhebvlwkeblwekb
0x0070: 766c 7756 4448 5742 2e57 2c4b 4856 2042 vlwVDHwB.W,KHV.B
0x0080: 772c 6876 6220 5748 4b56 5742 4856 420a w,hvb.WHKVWBHV.B
0x0090: 7662 7765 6a62 7677 6a65 6276 7768 6562 vbwejbvbwjebvwheb
0x00a0: 766c 776b 6562 6c77 656b 6276 6c77 5644 vlwkeblwekbvlwVD
0x00b0: 4857 422e 572c 4b48 5620 4277 2c68 7662 HwB.W,KHV.Bw,hvb
0x00c0: 2057 484b 5657 4248 5642 0a76 6277 656a .WHKVWBHV.B.vbwejb
0x00d0: 6276 776a 6562 7677 6865 6276 6c77 6b65 vbwhebvlwkeblwekb
0x00e0: 626c 7765 6b62 766c 7756 4448 5742 2e57 blwekbvlwVDHwB.W
0x00f0: 2c4b 4856 2042 772c 6876 6220 5748 4b56 ,KHV.Bw,hvb.WHKV
0x0100: 5742 4856 420a 7662 7765 6a62 7677 6a65 WBHV.B.vbwejbvbwje
0x0110: 6276 7768 6562 766c 776b 6562 6c77 656b vbwhebvlwkeblwekb
0x0120: 6276 6c77 5644 4857 422e 572c 4b48 5620 bvlwVDHwB.W,KHV.
0x0130: 4277 2c68 7662 2057 484b 5657 4248 5642 Bw,hvb.WHKVWBHV.B
0x0140: 0a76 6277 656a 6276 776a 6562 7677 6865 .vbwejbvbwjebvwhe
0x0150: 6276 6c77 6b65 626c 7765 6b62 766c 7756 bvlwkeblwekbvlwV
0x0160: 4448 5742 2e57 2c4b 4856 2042 772c 6876 DHwB.W,KHV.Bw,hv
0x0170: 6220 5748 4b56 5742 4856 420a 7662 7765 b.WHKVWBHV.B.vbwejb
0x0180: 6a62 7677 6a65 6276 7768 6562 766c 776b jbvwejbvbwhebvlwk
0x0190: 6562 6c77 656b 6276 6c77 5644 4857 422e eblwekbvlwVDHwB.
0x01a0: 572c 4b48 5620 4277 2c68 7662 2057 484b W,KHV.Bw,hvb.WHK
0x01b0: 5657 4248 5642 0a76 6277 656a 6276 776a VWBHV.B.vbwejbvbwj
0x01c0: 6562 7677 6865 6276 6c77 6b65 626c 7765 ebvwhebvlwkeblwe
0x01d0: 6b62 766c 7756 4448 5742 2e57 2c4b 4856 kbvlwVDHwB.W,KHV
0x01e0: 2042 772c 6876 6220 5748 4b56 5742 4856 .Bw,hvb.WHKVWBHV
0x01f0: 420a 7662 7765 6a62 7677 6a65 6276 7768 B.vbwejbvbwjebvwhe
0x0200: 6562 766c 776b 6562 6c77 656b 6276 6c77 ebvlwkeblwekbvlw
0x0210: 5644 4857 422e 572c 4b48 5620 4277 2c68 VDHwB.W,KHV.Bw,h
0x0220: 7662 2057 484b 5657 4248 5642 0a76 6277 vb.WHKVWBHV.B.vbw
0x0230: 656a 6276 776a 6562 7677 6865 6276 6c77 ejbvwejbvbwhebvlw
0x0240: 6b65 626c 7765 6b62 766c 7756 4448 5742 keblwekbvlwVDHwB
0x0250: 2e57 2c4b 4856 2042 772c 6876 6220 5748 .W,KHV.Bw,hvb.WH
0x0260: 4b56 5742 4856 420a 7662 7765 6a62 7677 KVWBHV.B.vbwejbvw
0x0270: 6a65 6276 7768 6562 766c 776b 6562 6c77 jebvwhebvlwkeblw
0x0280: 656b 6276 6c77 5644 4857 422e 572c 4b48 ekbvlwVDHwB.W,KH
0x0290: 5620 4277 2c68 7662 2057 484b 5657 4248 V.Bw,hvb.WHKVWBH
0x02a0: 5642 0a76 6277 656a 6276 776a 6562 7677 VB.vbwejbvbwjebvw
```

Slave 2 IP

Slave 1 IP

Slave 2 copying the data of file aaa.txt (or sending to Slave 1, which it received from Client).

Data of file as payload

Hence, we can say that client copies data to only one slave and that slave copies it into other slave and client does not connect to every slave to store replicas of a block.

root@ip-172-31-4-183:~

Slave 1

08:06:11.826017 IP ec2-3-15-31-172.us-east-2.compute.amazonaws.com.34138 > ip-172-31-4-183.us-east-2.compute.internal.50010: Flags [P.], seq 76:758, ack 4, win

211, options [nop,nop,TS val 17449852 ecr 2626601421], length 682

Slave 1 IP

Slave 2 IP

Slave 2 Sending the block data(replica) to the Slave 1

```
0x0000: 4500 02de 2558 4000 3f06 4031 030f 1fac E...%X@.?.@1....
0x0010: ac1f 04b7 09de 9a33 4a91 450e .....Z.Z...3J.E.
0x0020: 8018 00d3 0101 080a 5c0e 964c ....sh.....\..L
0x0030: 9c8e c1cd 0000 0295 0000 0000 0000 0000 .....
0x0040: 0000 0000 0000 0000 0100 0002 891a 6636 .....f6
0x0050: 63e5 8fad e776 6277 656a 6276 776a 6562 c...vbwejbvwjeb
0x0060: 7677 6865 6276 6c77 6b65 626c 7765 6b62 vwhebvwlwkeblwke
0x0070: 766c 7756 4448 5742 2e57 2c4b 4856 2042 vlwVDHwB.W,KHV.B
0x0080: 772c 6876 6220 5748 4b56 5742 4856 420a w,hvb.WHKVWBHVB.
0x0090: 7662 7765 6a62 7677 6a65 6276 7768 6562 vbwejbvwjebvwheb
0x00a0: 766c 776b 6562 6c77 656b 6276 6c77 5644 vlwkeblwkebvwlwV
0x00b0: 4857 422e 572c 4b48 5620 4277 2c68 7662 DHB.W,KHV.Bw,hvb
0x00c0: 2057 484b 5657 4248 5642 0a76 6277 656a .WHKVWBHVB.vbwejb
0x00d0: 6276 776a 6562 7677 6865 6276 6c77 6b65 bvwejbvwhebvlwke
0x00e0: 626c 7765 6b62 766c 7756 4448 5742 2e57 blwkebvwlwVDHwB.W
0x00f0: 2c4b 4856 2042 772c 6876 6220 5748 4b56 ,KHV.Bw,hvb.WHKV
0x0100: 5742 4856 420a 7662 7765 6a62 7677 6a65 WBHVB.vbwejbvwje
0x0110: 6276 7768 6562 766c 776b 6562 6c77 656b bvwejbvwhebvlwkeblw
0x0120: 6276 6c77 5644 4857 422e 572c 4b48 5620 bvlwVDHwB.W,KHV.
0x0130: 4277 2c68 7662 2057 484b 5657 4248 5642 Bw,hvb.WHKVWBHVB
0x0140: 0a76 6277 656a 6276 776a 6562 7677 6865 .vbwejbvwjebvwhe
0x0150: 6276 6c77 6b65 626c 7765 6b62 766c 7756 bvlwkeblwkebvwlwV
0x0160: 4448 5742 2e57 2c4b 4856 2042 772c 6876 DHwB.W,KHV.Bw,hv
0x0170: 6220 5748 4b56 5742 4856 420a 7662 7765 b.WHKVWBHVB.vbwejb
0x0180: 6a62 7677 6a65 6276 7768 6562 766c 776b jbvwejbvwhebvlwke
0x0190: 6562 6c77 656b 6276 6c77 5644 4857 422e eblwkebvwlwVDHwB.
0x01a0: 572c 4b48 5620 4277 2c68 7662 2057 484b W,KHV.Bw,hvb.WHK
0x01b0: 5657 4248 5642 0a76 6277 656a 6276 776a VWBHVB.vbwejbvwj
0x01c0: 6562 7677 6865 6276 6c77 6b65 626c 7765 ebvwhebvlwkeblw
0x01d0: 6b62 766c 7756 4448 5742 2e57 2c4b 4856 kbvwlwVDHwB.W,KHV
0x01e0: 2042 772c 6876 6220 5748 4b56 5742 4856 .Bw,hvb.WHKVWBHV
0x01f0: 420a 7662 7765 6a62 7677 6a65 6276 7768 B.vbwejbvwjebvwhe
0x0200: 6562 766c 776b 6562 6c77 656b 6276 6c77 ebvlwkeblwkebvwlw
0x0210: 5644 4857 422e 572c 4b48 5620 4277 2c68 VDHwB.W,KHV.Bw,h
0x0220: 7662 2057 484b 5657 4248 5642 0a76 6277 vb.WHKVWBHVB.vbwejb
0x0230: 656a 6276 776a 6562 7677 6865 6276 6c77 ejbvwejbvwhebvlw
0x0240: 6b65 626c 7765 6b62 766c 7756 4448 5742 keblwkebvwlwVDHwB
0x0250: 2e57 2c4b 4856 2042 772c 6876 6220 5748 .W,KHV.Bw,hvb.WH
0x0260: 4b56 5742 4856 420a 7662 7765 6a62 7677 KVWBHVB.vbwejbvw
0x0270: 6a65 6276 7768 6562 766c 776b 6562 6c77 jebvwhebvlwkeblw
0x0280: 656b 6276 6c77 5644 4857 422e 572c 4b48 ekbvwlwVDHwB.W,KH
0x0290: 5620 4277 2c68 7662 2057 484b 5657 4248 V.Bw,hvb.WHKVWBH
0x02a0: 5642 0a76 6277 656a 6276 776a 6562 7677 VB.vbwejbvwjebvw
0x02b0: 6865 6276 6c77 6b65 626c 7765 6b62 766c hebvlwkeblwkebvwl
0x02c0: 7756 4448 5742 2e57 2c4b 4856 2042 772c wVDHwB.W,KHV.Bw,
0x02d0: 6876 6220 5748 4b56 5742 4856 420a hvb.WHKVWBHVB.
```


08:06:11.829058 IP ip-172-31-4-183.us-east-2.compute.internal.50010 > ec2-3-15-3



Type here to search




Task 2-

root@ip-172-31-10-166:~  Master

```
0x0020: 8010 00d3 d4c3 0000 0101 080a 0b40 349c .....@4.
0x0030: 7b7c 7773                               {|ws
```

```
08:32:23.002240 IP ec2-3-16-135-239.us-east-2.compute.amazonaws.com.47974 > ip-172-31-10-166.us-east-2.compute.internal.etlservicemgr: Flags [P.], seq 178:231, ack 23, win 211, options [nop,nop,TS val 188757155 ecr 2071754611], length 53
```

```
0x0000: 4500 0069 bcf6 4000 3f06 3cd4 0310 87ef E...i..@.?.<.....
0x0010: ac1f 0aa6 bb66 2329 5927 676b 018a 8be9 .....f#)Y'gk....
0x0020: 8018 00d3 7736 0000 0101 080a 0b40 34a3 .....w6.....@4.
0x0030: 7b7c 7773 0000 0031 0000 0001 000b 6765 {|ws...1.....ge
0x0040: 7446 696c 6549 6e66 6f00 0000 0100 106a tFileInfo.....j
0x0050: 6176 612e 6c61 6e67 2e53 7472 696e 6700 ava.lang.String.
0x0060: 082f 6161 612e 7478 74                      ./aaa.txt  File name
```

Client
contacting the
master to read
file.

```
08:32:23.011694 IP ip-172-31-10-166.us-east-2.compute.internal.etlservicemgr > ec2-3-16-135-239.us-east-2.compute.amazonaws.com.47974: Flags [P.], seq 23:184, ack 231, win 219, options [nop,nop,TS val 2071754627 ecr 188757155], length 161
```

```
0x0000: 4500 00d5 8b3e 4000 4006 6d20 ac1f 0aa6 E....>@.@.m.....
0x0010: 0310 87ef 2329 bb66 018a 8be9 5927 67a0 ....#).f....Y'g.
0x0020: 8018 00db 428c 0000 0101 080a 7b7c 7783 ....B.....{|w.
0x0030: 0b40 34a3 0000 0001 0000 0000 002e 6f72 .@4.....or
0x0040: 672e 6170 6163 6865 2e68 6164 6f6f 702e g.apache.hadoop.
0x0050: 6864 6673 2e70 726f 746f 636f 6c2e 4864 hdfs.protocol.Hd
0x0060: 6673 4669 6c65 5374 6174 7573 002e 6f72 fsFileStatus..or
0x0070: 672e 6170 6163 6865 2e68 6164 6f6f 702e g.apache.hadoop.
0x0080: 6864 6673 2e70 726f 746f 636f 6c2e 4864 hdfs.protocol.Hd
0x0090: 6673 4669 6c65 5374 6174 7573 0000 0000 fsFileStatus....
0x00a0: 0000 0000 0000 0289 0000 0300 0000 0004 .....
0x00b0: 0000 0000 0001 7507 3f04 2f00 0001 7507 .....u.?./...u.
0x00c0: 3f04 2f01 a404 726f 6f74 0a73 7570 6572 ?./...root.super
0x00d0: 6772 6f75 70                                group
```

Reading file
from the File
System

```
08:32:23.020551 IP ec2-3-16-135-239.us-east-2.compute.amazonaws.com.47974 > ip-172-31-10-166.us-east-2.compute.internal.etlservicemgr: Flags [P.], seq 231:318, ack 184, win 219, options [nop,nop,TS val 188757173 ecr 2071754627], length 87
```

```
0x0000: 4500 008b bcf7 4000 3f06 3cb1 0310 87ef E....@.?.<.....
0x0010: ac1f 0aa6 bb66 2329 5927 67a0 018a 8c8a .....f#)Y'g.....
0x0020: 8018 00db 93aa 0000 0101 080a 0b40 34b5 .....@4.
0x0030: 7b7c 7783 0000 0053 0000 0002 0011 6765 {|w....S.....ge
0x0040: 7442 6c6f 636b 4c6f 6361 7469 6f6e 7300 tBlockLocations.
0x0050: 0000 0300 106a 6176 612e 6c61 6e67 2e53 .....java.lang.S
0x0060: 7472 696e 6700 082f 6161 612e 7478 7400 tring../aaa.txt.
0x0070: 046c 6f6e 6700 0000 0000 0000 0000 046c .long.....l
0x0080: 6f6e 6700 0000 0028 0000 00                                ong....(...
```

```
08:32:23.021010 IP ip-172-31-10-166.us-east-2.compute.internal.etlservicemgr > ec2-3-16-135-239.us-east-2.compute.amazonaws.com.47974: Flags [P.], seq 184:683, ack 318, win 219, options [nop,nop,TS val 2071754636 ecr 188757173], length 499
```

```
0x0000: 4500 0227 8b3f 4000 4006 6bcd ac1f 0aa6 E..'.?@.@.k.....
0x0010: 0310 87ef 2329 bb66 018a 8c8a 5927 67f7 ....#).f....Y'g.
0x0020: 8018 00db 43de 0000 0101 080a 7b7c 778c ....C.....{|w.
0x0030: 0b40 34b5 0000 0002 0000 0000 002d 6f72 .@4.....-or
0x0040: 672e 6170 6163 6865 2e68 6164 6f6f 702e g.apache.hadoop.
0x0050: 6864 6673 2e70 726f 746f 636f 6c2e 4c6f hdfs.protocol.Lo
```

Type here to search



root@ip-172-31-10-166:~

```
0x0050: 0000 0300 106a 6176 612e 6c61 6e67 2e53 java lang S
0x0060: 7472 696e 6700 082f 6161 612e 7478 7400 tring../aaa.txt.
0x0070: 046c 6f6e 6700 0000 0000 0000 0000 046c .long.....l
0x0080: 6f6e 6700 0000 0028 0000 00 ong....(...
08:32:23.021010 IP ip-172-31-10-166.us-east-2.compute.internal.etlservicemgr > e
c2-3-16-135-239.us-east-2.compute.amazonaws.com.47974: Flags [P.], seq 184:683,
ack 318, win 219, options [nop,nop,TS val 2071754636 ecr 188757173], length 499
0x0000: 4500 0227 8b3f 4000 4006 6bcd ac1f 0aa6 E..'.?@.k....
0x0010: 0310 87ef 2329 bb66 018a 8c8a 5927 67f7 ....#).f....Y'g.
0x0020: 8018 00db 43de 0000 0101 080a 7b7c 778c ....C.....{|w.
0x0030: 0b40 34b5 0000 0002 0000 0000 002d 6f72 .@4.....-or
0x0040: 672e 6170 6163 6865 2e68 6164 6f6f 702e g.apache.hadoop.
0x0050: 6864 6673 2e70 726f 746f 636f 6c2e 4c6f hdfs.protocol.Lo
0x0060: 6361 7465 6442 6c6f 636b 7300 2d6f 7267 catedBlocks.-org
0x0070: 2e61 7061 6368 652e 6861 646f 6f70 2e68 .apache.hadoop.h
0x0080: 6466 732e 7072 6f74 6f63 6f6c 2e4c 6f63 dfs.protocol.Loc
0x0090: 6174 6564 426c 6f63 6b73 0000 0000 0000 atedBlocks.....
0x00a0: 0289 0000 0000 0100 0000 0000 0000 0000 .....
0x00b0: 0000 0000 74c4 49d7 70b0 0d24 0000 0000 ....t.I.p..$.
0x00c0: 0000 0289 0000 0000 0000 0432 0000 0002 .....2....
0x00d0: 0012 332e 3133 372e 3137 332e 3633 3a35 ..3.137.173.63:5
0x00e0: 3030 3130 002e 4453 2d31 3833 3631 3536 0010..DS-1836156
0x00f0: 3636 392d 3137 322e 3331 2e34 2e31 3833 669-172.31.4.183
0x0100: 2d35 3030 3130 2d31 3630 3039 3638 3938 -50010-160096898
0x0110: 3935 3130 c39b c364 0000 0002 7f3f b000 9510...d.....?..
0x0120: 0000 0000 020f 2000 0000 0002 0202 2000 .....
0x0130: 0000 0175 0756 f53d 0000 0001 0d2f 6465 ...u.V.=...../de
0x0140: 6661 756c 742d 7261 636b 2a69 702d 3137 fault-rack*ip-17
0x0150: 322d 3331 2d34 2d31 3833 2e75 732d 6561 2-31-4-183.us-ea
0x0160: 7374 2d32 2e63 6f6d 7075 7465 2e69 6e74 st-2.compute.int
0x0170: 6572 6e61 6c06 4e4f 524d 414c 0011 332e ernal.NORMAL..3.
0x0180: 3135 2e33 312e 3137 323a 3530 3031 3000 15.31.172:50010.
0x0190: 2e44 532d 3134 3435 3132 3234 3936 2d31 .DS-1445122496-1
0x01a0: 3732 2e33 312e 352e 3139 312d 3530 3031 72.31.5.191-5001
0x01b0: 302d 3136 3032 3133 3839 3933 3135 37c3 0-1602138993157.
0x01c0: 9bc3 6400 0000 027f 3fb0 0000 0000 0002 ..d.....?.....
0x01d0: 0f20 0000 0000 020a b7b0 0000 0001 7507 .....u.
0x01e0: 56f4 0f00 0000 010d 2f64 6566 6175 6c74 V...../default
0x01f0: 2d72 6163 6b2a 6970 2d31 3732 2d33 312d -rack*ip-172-31-
0x0200: 352d 3139 312e 7573 2d65 6173 742d 322e 5-191.us-east-2.
0x0210: 636f 6d70 7574 652e 696e 7465 726e 616c compute.internal
0x0220: 064e 4f52 4d41 4c .NORMAL
08:32:23.043448 IP ec2-3-16-135-239.us-east-2.compute.amazonaws.com.47974 > ip-1
72-31-10-166.us-east-2.compute.internal.etlservicemgr: Flags [F.], seq 318, ack
683, win 227, options [nop,nop,TS val 188757196 ecr 2071754636], length 0
0x0000: 4500 0034 bcf8 4000 3f06 3d07 0310 87ef E..4..@.?.=....
0x0010: ac1f 0aa6 bb66 2329 5927 67f7 018a 8e7d .....f#)Y'g....}
0x0020: 8011 00e3 d149 0000 0101 080a 0b40 34cc .....I.....@4.
0x0030: 7b7c 778c {|w.
08:32:23.043551 IP ip-172-31-10-166.us-east-2.compute.internal.etlservicemgr > e
```

File to be read

Master sending the IP
addresses of both slaves
to the client to read the
file.


```

0x0010: 0310 87ef c35a 84a6 5845 17c3 1732 9004 .....Z..XE...2..
0x0020: 8018 1a38 3c19 0000 0101 080a 96b1 c1aa ...8<.....
0x0030: 62be cd77 0000 0208 0000 0000 0000 0000 b..w.....
0x0040: 0000 0000 0000 0000 0000 0002 001a 6636 .....f6
0x0050: 62.....g
08:32:23.035117 IP ip-172-31-4-183.us-east-2.compute.internal.50010 > ec2-3-16-1
35-239.us-east-2.compute.amazonaws.com.33958: Flags [P.], seq 45:557, ack 77, wi
n 6712, options [nop,nop,TS val 2528231850 ecr 1656671607], length 512
0x0000: 4500 0234 890c 4000 4006 73e2 ac1f 04b7 E..4...@.@.s.....
0x0010: 0310 87ef c35a 84a6 5845 17e0 1732 9004 .....Z..XE...2..
0x0020: 8018 1a38 3dfc 0000 0101 080a 96b1 c1aa ...8=.....
0x0030: 62be cd77 7662 7765 6a62 7677 6a65 6276 b..wvbwjebvwjebv
0x0040: 7768 6562 766c 776b 6562 6c77 656b 6276 whebvlwkeblwekbv
0x0050: 6c77 5644 4857 422e 572c 4b48 5620 4277 lwVDHwB.W,KHV.Bw
0x0060: 2c68 7662 2057 484b 5657 4248 5642 0a76 /hvb.WHKVWBHVB.v
0x0070: 6277 656a 6276 776a 6562 7677 6865 6276 bwejbvwjebvwhebvw
0x0080: 6c77 6b65 626c 7765 6b62 766c 7756 4448 lwkeblwekbvldVDH
0x0090: 5742 2e57 2c4b 4856 2042 772c 6876 6220 WB.W,KHV.Bw,hvb.
0x00a0: 5748 4b56 5742 4856 420a 7662 7765 6a62 WHKVWBHVB.vbwjeb
0x00b0: 7677 6a65 6276 7768 6562 766c 776b 6562 vwjebvwhebvlwkeb
0x00c0: 6c77 656b 6276 6c77 5644 4857 422e 572c lwekbvldVDHwB.W,
0x00d0: 4b48 5620 4277 2c68 7662 2057 484b 5657 KHV.Bw,hvb.WHKVW
0x00e0: 4248 5642 0a76 6277 656a 6276 776a 6562 BHVB.vbwjebvwjeb
0x00f0: 7677 6865 6276 6c77 6b65 626c 7765 6b62 vwhebvlwkeblwekb
0x0100: 766c 7756 4448 5742 2e57 2c4b 4856 2042 vlwVDHwB.W,KHV.B
0x0110: 772c 6876 6220 5748 4b56 5742 4856 420a w,hvb.WHKVWBHVB.
0x0120: 7662 7765 6a62 7677 6a65 6276 7768 6562 vbwejbvwjebvwheb
0x0130: 766c 776b 6562 6c77 656b 6276 6c77 5644 vlwkeblwekbvldVD
0x0140: 4857 422e 572c 4b48 5620 4277 2c68 7662 HWB.W,KHV.Bw,hvb
0x0150: 2057 484b 5657 4248 5642 0a76 6277 656a .WHKVWBHVB.vbwjeb
0x0160: 6276 776a 6562 7677 6865 6276 6c77 6b65 bvwejbvwhebvlwke
0x0170: 626c 7765 6b62 766c 7756 4448 5742 2e57 blwekbvldVDHwB.W
0x0180: 2c4b 4856 2042 772c 6876 6220 5748 4b56 ,KHV.Bw,hvb.WHKV
0x0190: 5742 4856 420a 7662 7765 6a62 7677 6a65 WBHVB.vbwjebvwje
0x01a0: 6276 7768 6562 766c 776b 6562 6c77 656b bvwejbvwjebvwhe
0x01b0: 6276 6c77 5644 4857 422e 572c 4b48 5620 bvlwVDHwB.W,KHV.
0x01c0: 4277 2c68 7662 2057 484b 5657 4248 5642 Bw,hvb.WHKVWBHVB
0x01d0: 0a76 6277 656a 6276 776a 6562 7677 6865 .vwjebvwjebvwhe
0x01e0: 6276 6c77 6b65 626c 7765 6b62 766c 7756 bvlwkeblwekbvldV
0x01f0: 4448 5742 2e57 2c4b 4856 2042 772c 6876 DHwB.W,KHV.Bw,hv
0x0200: 6220 5748 4b56 5742 4856 420a 7662 7765 b.WHKVWBHVB.vbwe
0x0210: 6a62 7677 6a65 6276 7768 6562 766c 776b jbwjebvwhebvlwk
0x0220: 6562 6c77 656b 6276 6c77 5644 4857 422e eblwekbvldVDHwB.
0x0230: 572c 4b48 W,KH
08:32:23.035158 IP ip-172-31-4-183.us-east-2.compute.internal.50010 > ec2-3-16-1
35-239.us-east-2.compute.amazonaws.com.33958: Flags [P.], seq 557:586, ack 77, w
in 6712, options [nop,nop,TS val 2528231850 ecr 1656671607], length 29
0x0000: 4500 0051 890d 4000 4006 75c4 ac1f 04b7 E..Q...@.@.u.....
0x0010: 0310 87ef c35a 84a6 5845 19e0 1732 9004 .....Z..XE...2..
0x0020: 8018 1a38 3c19 0000 0101 080a 96b1 c1aa ...8<.....

```

Slave 1 sending the data to client, client directly come to client to read the file.

Slave data sending to client as payload